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Presidential Address

ON THE

PROGRESS OF LIFE ASSURANCE MEDICINE IN THE PAST THIRTY YEARS.

Delivered to the Life Assurance Medical Officers' Association on Jan. 7th, 1914,

BY R. HINGSTON FOX, M.D. BRUX., M.R.C.P. LOND.,

PHYSICIAN TO THE FRIENDS' PROVIDENT INSTITUTION.

[AFTER thanking the members of the association for his election to the honourable post of president Dr. Hingston Fox said:—]

It is now 30 years since I entered on insurance practice. It may be of interest to look back over that space of time, to compare past and present methods, and to recall some of the improvements and advances which have been witnessed, concluding with an attempt to forecast some features of the prospect before us.

THE MEDICAL REPORT.

In 1884, the date referred to, reports of life assurance examinations were much less full than they are now. Fewer details were required as to the condition of the heart, the lungs, or the kidneys. A report on the urine was optional, only to be furnished in certain cases. It followed that the office relied more upon the examiner's general impression of the healthiness of the proposer and less upon definite data. If we turn to a still earlier period and recall the reports of examinations made in the earlier decades of last century, when most of the large insurance companies in Great Britain were instituted, we find that the form of record used was yet simpler. Some of us have met with these early reports when examining claim papers; I have myself seen those dating from the early "thirties." Neither height nor weight was required; there was no examination of the urine; that of "the chest" was evidently slight and little emphasised; and the report might be summed up as simply conveying the physician's opinion, whether upon the whole the appearance and habits of the proposer were conducive to health and long life. No doubt some instances of disease in an early stage—nephritis, diabetes, heart disorders, and tuberculous changes in the lungs—slipped through the fingers of these examiners; and yet it cannot be denied that, with their limited means of diagnosis, the former workers in this field acquired powers of discerning and estimating the conditions which promote or hinder life, and that many of them had a shrewd insight into prognosis. We may pause here to ask the question whether, in the present day, having enlarged our forms to include a considerable range of detailed information, we are not in danger of putting into a secondary place that general view and opinion of the value of a life to which our predecessors were almost restricted. The forms of different assurance companies vary much. This association drew up in 1896, as the result of the prolonged labours of a committee, a form for use by medical examiners, which was adopted by some offices; this form now needs itself to be revised. Some schedules, especially those of well-known American offices, demand from the examiners answers to a series of questions of extraordinary length and multiplicity. Surely if the medical mind is fatigued by the detail labour thus required, it will be less ready to give, what is really wanted most of all, a reasoned and balanced opinion, under a due sense of responsibility, of the healthiness of the life in question.

FAMILY HISTORY.

Taking next the department of family history, it may be said that upon the whole rather less importance has come to be attached to the facts of family history in estimating lives. This seems to be due to the fuller recognition of the causes of disease, or rather, perhaps, of their immediate or exciting causes. In the year 1884 the bacillus of tubercle had only recently been discovered. Since that time the connexion of many other diseases with the life-history of micro-organisms has been established. The onset of such diseases is seen to depend upon external causes to an extent not previously supposed. Hence the factor of inheritance looms less large in the field of prognosis. Probably, however, we shall still do well to give it an important place. One of the chief uses of family history has reference to the risk of tuberculosis. This will be referred to later.

There is another kind of family record which still, I think, demands our careful notice and suggests inquiry. I refer to a tendency to early death, or early breakdown age, on the part of parents, brothers, or sisters. More research is, however, needed in the department of family history. Such research should be based upon series of reports furnished by selected careful observers. The average reports received from a large number of examiners spread over the country, some of whom are not in the frequent practice of insurance examinations, are generally too brief and otherwise unsuited to form a reliable basis.

PERSONAL HISTORY.

In the department of personal history fresh light has been thrown upon many questions. The significance of a past history of pleurisy was discussed by Dr. Hector Mackenzie before our association,[1] when evidence was shown that pleurisy with effusion is most often tuberculous, and as such should be regarded as an adverse factor needing consideration. Appendicitis is a disorder which has only become common, and known under that name, during the past 30 years, its previous occurrence, when known as perityphlitis, being comparatively infrequent. The bearings of a history of attacks of this disorder on the prospects of life were well expounded by Dr. J. Fawcett and others at one of our meetings.[2] It is too soon yet to say whether recent improvements in the treatment of syphilis,[3] and especially the use of salvarsan, will lessen the adverse influence of a syphilitic history. For it is the remoter consequences of this disease, and especially general paralysis of the insane, which we have to take into account in our prognosis, and a good many years' experience of the newer remedies will be required before it can be determined whether they prevent the onset of these more remote phenomena.

SURGICAL AILMENTS.

The extraordinary progress of surgery during the period under review has enabled us to take a

[1] Transactions of the Life Assurance Medical Officers' Association, 1894–7, p. 196.

[2] Ibid., 1908–9, p. 211.

[3] Dr. T. Colcott Fox: Ibid., 1894–7, p. 125; Mr. A. Shillitoe: Ibid., 1904–5, p. 233.

lighter view of the liability to some diseases. The comparative safety of abdominal operations, the readiness with which piles can be removed, tumours excised, cavities drained, and hernia[4] radically cured, have tended to render less serious from the life insurance aspect many disorders for which these operations are performed.

HEART DISEASE.

With regard to affections of the heart, there has been much advance in their diagnosis during the past generation, less, perhaps, by means of fuller observations—for master clinicians like Walshe, Peacock, and Balfour had already carried accuracy as it seemed to its farthest limit—than by the interpretation of what was observed. After all, the method of auscultation has been in common use for hardly a century, and it would be strange if its lessons were soon perfected. Thirty years ago cardiac diagnosis was still governed much by the criterion of murmurs. The doctor who listened to his patient's heart and finding the one sought-for symptom casually and genially remarked, "I hear your death-knell," may be apocryphal. But the story illustrates the attitude of that day in cardiac pathology. To-day our first attention is given to the integrity of the heart in its muscular and nervous mechanism: is it functionally efficient or is there degeneration or chronic myocarditis? Dr. James Mackenzie has, as we all know, done much to promote this change of outlook on heart disorders and has contributed to our own Transactions.[5] There is no doubt that not a few lives having a fair prospect of longevity used to be rejected for assurance on account of valvular defects which were well compensated, and that we are now able to recommend many such cases at an extra rating. The medical report form should contain a question, suitably worded, on the functional efficiency of the heart.

BLOOD PRESSURE.

The measurement of arterial tension has not as yet taken a recognised place in insurance medical examinations. In this matter our American colleagues have been before us and have done good work on the detail of the methods in use and on its bearing upon the prospects of life. There is a disposition among the American offices to require a record of the systolic blood pressure whenever the age of the proposer is 45 years or over, and to fix a limit of about 150 mm. at and over which no life is accepted on normal terms. Formulæ have been worked out for sex—females showing an average reading of 10 mm. below that of males; and for age —1 mm. being added for every two years of life above the age of 20. A range of 17 mm. above or below the average for the age is considered normal. Dr. J. W. Fisher, of the North Western Mutual Office, has published mortality records showing a greatly increased death-rate within only two years in those whose arterial pressures exceeded 150 mm.[6] The data, however, are not large, and the time is as yet too short to provide a basis for firm conclusions.

In estimating the value of blood pressure observations we have to take into account the influence of many temporary and unimportant causes which must be eliminated in each case. The effects of mental and emotional strain, of active exercise, of posture and of meals in producing a passing alteration of tension are well known. Less certain is the influence, immediate or remote, of some poisons, especially of tobacco and alcohol. When these are excluded we still cannot at once tell whether we have to do with a state of transient spasm of the vessel wall or one of more permanent and progressive change: a product of alimentary toxæmia or of kidney failure. These difficulties, however, should not deter us from making use of a valuable medical sign, but they suggest caution against drawing hasty conclusions from a single record—a record, too, which may have been obtained from an obese subject with a deep artery. Upon the whole, I suggest that the time has come when our medical form should include a question on the arterial blood pressure; which is to be reported on whenever there is any history or suspicion of heart or kidney disorder; and in all cases without exception in which the age is 45 years or over. It may be a good while before our reports supply pressure records of much value, but a beginning should be made.

ALBUMINURIA.

There is no subject of more importance in the everyday work of the insurance physician than the significance of albuminuria. Thirty years ago the type of albuminuria, which is now variously designated as physiological, functional, cyclic, adolescent, or hæmatogenous, had been already described by some observers, including Moxon and Dukes. Since then the researches of Pavy, G. Johnson, and many others have established the fact that this symptom denotes a temporary condition in younger life, unattended by disease of the kidney. It was natural that insurance authorities should take a cautious view of this matter. Are the subjects of functional albuminuria, they asked, going to develop renal disease in after life? Experience alone could answer this question, and our association has been able to supply some records of value for this purpose. In the year 1906 the after results were tabulated for a series of cases of this type of albuminuria, which had been examined for life assurance at intervals varying from 10 to 22 years previously. The evidence which has in such ways accumulated during the past generation justifies a clear conviction of the reality of this disorder; and the time seems to be ripe for the definition of its true nature and its relations to the bodily processes. The diagnosis of hæmatogenous albuminuria, if one may use a term less open than others to objection, need now seldom present any difficulty in life assurance practice.[7]

CLIMATE RISKS.

With regard to climate, a valuable paper by Mr. J. Cantlie is contained in our Transactions for 1902–03 (p. 107), in which he deals with the relative healthiness of the principal warmer countries of the world. Advances in medical science, both pathological and preventive, during the past 30 years have greatly improved the prospects of life for those going out to reside in tropical climates. The malarial parasite had, indeed, been discovered by Laveran in 1880, but the knowledge of the part taken by mosquitoes in malaria, yellow fever, and other diseases, which we owe to Sir Patrick Manson and others, but especially to Sir Ronald Ross, dates only from near the end of the century. Since then tropical sanitation has entered on an entirely new

[4] Mr. W. M. Eccles, Ibid., 1904–5, p. 207.
[5] Ibid., 1912–13.
[6] See Dr. F. A. Faught, of Philadelphia, Blood Pressure, 1913; Dr. J. W. Fisher, in Medical Record, N.Y., Oct. 21st, 1911, p. 818.
[7] Hingston Fox: Transactions of the Life Assurance Medical Officers' Association, 1906–7, p. 61.

epoch. Its results still halt far behind the standard of attainment justified by present knowledge, owing to a spirit of apathy and unwise economy on the part of governments, but the magnificent feat—one of the medical glories of the new century—the feat of cleansing the Panama Canal Zone of its death plagues by the American sanitary authorities, shows what can be done by men of determination and of whole-hearted faith in science when power and money are given them without stint.

The practice of the prevention of malaria and other fevers, although incompletely pursued as yet, has made the tropics much more healthy places of residence for the European. The use of antityphoid inoculation, which was first largely employed in the British Army in India in 1899, has much diminished the fatality of that plague. Blackwater fever has been distinguished from malaria, and Mediterranean fever and dysentery are better understood and their treatment is more successful. The gradual spread of hygiene has done something to improve the all-round conditions of life in hot countries, and has taught Europeans how to adapt themselves to those conditions. In consequence of these changes and of the resulting better health maintained life assurance companies no longer look with fear upon those who are going to reside in warm countries. Many of the largest offices, following American precedent, grant whole-world policies from the outset to those who have no immediate prospect of proceeding outside the usual free limits, which include the temperate parts of both hemispheres. Some defer the world-wide privilege for three years from the date of issue. For those who insure with a prospect of going to a warm climate an extra rating is imposed of less amount than was formerly in use, but varying greatly in different offices: £1 per cent. per annum continuously, 10s. per cent. for ten years only, 10s. for five years, and £1 10s. for three years, are instances of various ratings for those going to India.

It would be well if the offices agreed to observe a more uniform rule in this matter, and it may be suggested that the time is come when the question of tropical extras should be reconsidered in the light of present knowledge. We must remember that those who go out are in general picked lives; that whether Government officials, commercial traders, or missionaries, they have usually been subjected to a pretty severe health examination which eliminates the unfit. Provision for annual holiday and for furlough has now become systematised. If, then, we are satisfied that the conditions of life in warm countries are now attended with far less risk than was formerly the case, may we not have reached the time when those who go out under ordinary circumstances to India, and perhaps also to China, may be taken without extra rating? They should be inoculated against enteric fever, and their health record and personal condition should be good; defects in such matters might fairly be looked at somewhat more strictly than in the case of those who reside at home; but it is questionable whether an extra rating for the ordinary healthier districts in these countries is now necessary in first-class lives.

SPECIFIC FEVERS.

Amongst the causes which produce mortality in the early years of assurance, and therefore bring much loss to the offices, is the group of specific fevers or acute infections. In an analysis of early death claims drawn up by this association,[8] the group of acute fevers, together with accidents and suicides, were found to account for one-half of the deaths which took place in the first two years after insurance. The period of time we are reviewing has brought a flood of knowledge on the nature of acute infections—knowledge which has helped us much in their treatment and much also in their prevention. Of those diseases in this group which affect adult lives, typhoid fever and scarlatina are less fatal than they were; appendicitis has increased; and many fatal illnesses formerly described as blood-poisoning or fever are now defined, by the discovery of streptococci or other parasites. Upon the whole increased knowledge should tend in the present, and still more in the future, to safeguard insured lives from these special risks.

VACCINATION.

A few words may be added here on the risk of small-pox and the use of vaccination. An important discussion on this subject, introduced by Mr. W. H. Jalland, of York, will be found in our Transactions.[9] The conclusion which most commended itself to the speakers was an unexpected one—viz., that in the present state of the community and from the teachings of experience the offices are fairly justified at present in not insisting upon the requirement of successful vaccination. It was not that the members of this association had any hesitation as to the expediency of this most useful prophylactic measure; it would argue ignorance of medical history to be unable to recognise that vaccination has saved countless thousands of lives. But the advance of sanitation and the practice of isolating persons exposed to infection, alongside of the compulsory use of vaccination in the past, seem to have produced a degree of immunity to small-pox in the population at large, such as renders a serious outbreak very improbable, and we may be well assured that if such should unhappily occur there would be a rush to the lancet of the vaccinator.

LYMPHO-RHEUMATIC DISEASES.

There is a line of inquiry which has seemed to the speaker worthy of more attention than it has, so far as he is aware, received. All persons are not equally liable to the so-called specific fevers. Let an illustration be given. Two sisters married and had large families of children. In the one family typhoid fever, scarlet fever, diphtheria, and rheumatic fever occurred, most, if not all of them, to more than one member. In the other family none of these disorders were found, although the general standard of health was no whit better. It must have occurred to us all in studying the family and personal histories of candidates for life assurance to see similar instances, perhaps not so striking, of the prevalence or absence of these diseases. There seems to be a fairly defined group of disorders, for which until a better name is chosen that of lympho-rheumatic may be used; it includes the specific fevers whose chief lesions are in the tonsils and the similar structures in the intestines—scarlet fever, diphtheria, enteric fever, perhaps appendicitis; acute rheumatism, with its associates, chorea and peliosis; and I think a type of epilepsy belongs to the group. Not to pursue this subject further, it may be permissible to point out that the recognition from records of family and personal history, that a proposer is liable to this group of disorders,

[8] Ibid., 1900–01, p. 86.
[9] 1910–11, p. 199.

would afford a fact of value in estimating his prospects of life. It may be added that it often supplies a determining factor in judging of the necessity of antityphoid inoculation under particular circumstances.

VARIETIES OF POLICIES.

The last 30 years have seen the introduction of much variety in the form of assurance policies. Endowment assurance, the limited premiums policy, and the convertible term policy have all found their vogue; as has the double endowment form, sometimes granted without medical examination. These are, it is true, matters for the actuaries, but the head office physician needs to understand their bearing, that he may help his actuarial colleague. We have come gradually to learn the principles upon which the acceptance of second-class lives should be based. Extra risks may be divided broadly into three classes: those in which the risk is of an increasing character—for example, heart or kidney disease; those which are diminishing risks, especially tubercle; and lastly, those which apply continuously throughout the expectation period, such as occupation or climate. The form of rating to be chosen may depend upon the kind of extra risk, and it is often possible to select a description of policy which meets the risk involved, with the maximum of safety to the office and of convenience to the insurer.[10]

TUBERCULOSIS.

Two topics of surpassing interest confront us in looking forward. Tuberculosis and cancer together account for about 15 per cent. of the deaths of insured persons; and a more important fact is that many of these deaths occur in early adult or middle life. What people die from in old age has for us as insurance physicians little more than an academic interest, but the causes of premature death, these it is our business to study closely. How are these diseases going to affect our work in the future? For we ought to look forward. What we are doing to-day is to advise our offices how to estimate the risks, not so much of the present as of the future, and it is the results of the future which will justify our advice. Now, as to tuberculosis, we know that a great change has occurred; that the discovery of its living germ has given an immense impetus to the movement, which was already begun, for treating the disease on hygienic lines. Sanitation, notification, and sanatorium treatment, to which we may now add special dispensaries, health visiting, and probably the use of tuberculin, have acted (or will act) both by way of prevention and by way of cure. And the results are seen in the returns of deaths, for the mortality from phthisis has not only declined rapidly but at an accelerated rate. For adults over 25 years of age the death-rate is now about 40 per cent. lower than it was 30 years ago, and the fall has been greater in the case of women than in men.[11] If the present rate of decline continues for another 30 years, and there is a good prospect that it will do so, the old plague of consumption will wear a very different aspect in all civilised countries. This is a remarkable prospect. For insurance purposes it must be discounted a little, because the returns are for the whole community, and the insured classes have already been in the enjoyment of some of the advantages which are now extended to those who are poorer; it follows that they may not share to the full extent in the reduction of mortality. Yet evidence enough is left greatly to modify our outlook. In view, then, of the present lightening of the risk of phthisis and the prospect of its further reduction, we are surely justified in treating those proposers who show a liability to tubercle with less rigor than in the past. Researches which have been made during recent years into the family history of the disease, amongst which those of Dr. T. Glover Lyon and Mr. Manly[12] may be mentioned, have tended to discount its influence in increasing the risk, yet there are offices which still make a rule of imposing an extra rating upon all proposers who have lost a parent from phthisis. We may now, I think, regard a family history of tubercle as of little importance if the subject himself has good lungs and sound habits; we may accept many cases at tabular rates where the suspicion of liability rests on slight evidence; and we may be content with lower ratings where these are called for.

CANCER.

I pass on to speak of cancer. The past 30 years has seen the recorded mortality of this disease in England and Wales to rise in the case of males by 150 per cent., and in that of females by 60 per cent.,[13] and this despite the great advances in surgery, in sanitation, and in medical knowledge which have reduced the fatality of other diseases. Cancer now accounts for 1 in every 9 deaths among all adults of 25 years and upwards. In women between the ages of 40 and 60 years it accounts for 1 in every 5 deaths. He must be a bold man who would challenge the plain significance of these records, and still seek to explain away the apparent increase of cancer, large and continuous as it is, by the hypothesis of better diagnosis and certification. Just as we can look on tuberculosis as a diminishing cause of death in insured life so we must regard cancer as an increasing cause. We ought then, it seems to me, to scrutinise our methods of dealing with this risk, and especially to re-study the bearing of family history. The late Dr. J. F. Payne brought before this association in 1897[14] the results of his own studies, in a paper which was a model of dispassionate and balanced statement. His conclusions for the estimation of lives with a family history of cancer were pretty severe, and did not find full acceptance at the time, nor did Dr. W. S. Lazarus-Barlow and Dr. Gordon Taylor in their paper in 1905[15] take a like view. The subject needs further consideration now. As regards the insurance of women, the liability to malignant disease of the uterus and breast during the middle period of life has become so great that it is a question whether female lives in whose family histories there is a single such record amongst parents, brothers, or sisters should ever be taken without a rating. The increase of cancer dictates also special care in dealing with evidence of slight derangement of various organs, and especially of the digestive system, for it is in this tract that the increase of mortality has been most marked. This may be illustrated by an instance which came under my notice. A man, aged a little over 60, was examined, I was told, by one of our best physicians; he was

[10] See Dr. T. D. Lister, Extra Risk, Ibid., 1900-1, p. 159; Dr. R. Hingston Fox, ibid., 1894-7, p. 69, and 1902-3, p. 27.

[11] Registrar-General's Report for England and Wales, 1910, lv.

[12] Journal of Institute of Actuaries, XXX., 1892.

[13] Registrar-General's Report, 1911.

[14] Transactions of the Life Assurance Medical Officers Association, 1894-7, p. 247.

[15] Ibid., 1904-5, p. 147.

tall and thin and had some dyspeptic symptoms, but was taken as a first-class life for a large sum, spread over many offices. He died within a year of cancer of the stomach.

PROSPECT OF LOWER MORTALITY.

It would be interesting to pursue further our outlook into the future. Besides tubercle and cancer there are other diseases which are changing. Diabetes, for instance, is an increasing cause of death. But when we regard, on the one hand, the steady advance in medical and hygienic knowledge, and on the other the fact of a lowered general death-rate, we have warrant for looking forward to a lessened mortality among assured lives. The companies naturally base their rates upon past experience; hence the improved results which we foresee will come to augment their bonuses; but in the meantime they may, perhaps, consider themselves justified in doing something to ease the rates of premium from time to time. The O^m basis will need to give way to a new one as the office records of a realised lower mortality accumulate.

CONCLUSION: THE SCIENCE OF PROGNOSIS.

Time does not permit a full reference to accident insurance, which forms an important part of the scope of the association, and upon which valuable papers by Sir R. J. Collie, Sir T. Oliver, Dr. G. G. Howitt, Dr. F. Parkes Weber, and Mr. D. Knocker will be found in the Transactions for 1908–09 and 1910–11.

The department of medicine which this association represents is not only one of practical utility in its aim, applying the medical art to the practice of life assurance, and thus safeguarding the welfare of men or of those dependent on them; but it has also a scientific value, and contributes to the whole purpose of medicine itself. For it cultivates in the physician the art of prognosis, the habit of forecast—may I say the prophetic instinct? It casts a light upon symptoms and signs by which we may interpret them, not for the present but for the future. It leads to the study of tendencies to disease as well as of disease itself; it should help us to understand types of constitution, temperaments, diatheses, and idiosyncrasies. Which of us is not thankful for the experience it brings in the examination of the healthy as well as the sick? There is something, again, in the uncertainty of the results of all insurance operations that gives scope for the play of the imagination, and appeals, shall I say, to the sporting instincts that lie, whether hidden or obvious, in all human nature? But it is as honest work, good for the community, and grounded on scientific medicine, that the patient labours of the life assurance examiner may be commended. They are given, no less than the other activities of our profession, to circumvent disease and death and to promote reason and order in the affairs of men.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART.—On Jan. 12th H.R.H. Prince Arthur of Connaught, accompanied by Princess Arthur, opened the new buildings in Westmoreland-street of the National Hospital for Diseases of the Heart. The opening ceremony was performed in the out-patient hall, the president of the hospital, Lord Verulam, being in the chair. Prince Arthur in his speech showed himself well acquainted with the work and history of the institution and with the constant effort which is needed in order to keep a special hospital abreast of modern discoveries. He referred particularly to the electro-cardiograph (first devised by Professor A. D. Waller, a member of the consulting staff), with which the new building has been equipped.

THE VALUE OF THE CARDIAC SIGN IN CANCER.[1]

FIFTY CONSECUTIVE DIAGNOSES WITH 6 PER CENT. OF ERROR.

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MY title is of the sort that needs an apology. Its intention is simply to draw attention to a method; and I do not see how the point can be clearly put otherwise. For, as the proof of the pudding is, after all, in the eating of it, so the test of a diagnostic method is in the use of it. Possibly there are some who may think that 6 per cent. of error is excessive; for myself, I must frankly confess I could not have avoided more mistakes without help. The help has been the cardiac sign to which I have repeatedly drawn attention, and the table I submit will give some idea how much I have owed to it, at the same time indicating some of the limitations of its usefulness.

Since Oct. 1st, 1912, I have set down in easily accessible form every diagnosis of "cancer" and "not cancer," which I have made in *cases that were definitely doubtful when they were submitted to me*, and these diagnoses I have followed up, so far as has been possible, in order to discover how many and what kind of mistakes I have been making. The cases I present in the accompanying table are those thus recorded, and are strictly consecutive, except for two lost sight of, three in which the end was inconclusive (although all three verified the prognosis given), and a few of which it is as yet premature to speak decisively.

But just as a surgeon, by selection of only promising cases, can present a surprising percentage of successful operations, so a physician, by a system of extensive hedging, may attain remarkable success in such diagnoses as he risks. I would therefore point out that in the period covered by this table I do not think I have set aside more than half a dozen cases as uncertain, preferring rather to hazard an opinion where reasonable grounds for making one existed, and so to test fairly the measure of help which my means of investigation afforded me.

The diagnoses of "cancer" which have proved to be correct divide into three groups, viz.: (1) a group of 5 cases in which, for reasons given in the table, the cardiac sign was not available; (2) a group of six cases of visible or tangible cancers, where its help, though real, was of minor importance; and (3) a group of 11 cases of the difficult sort in which its assistance is so extremely valuable—cases of abdominal cancer where, short of operation, direct access to the growth is impossible. In the whole 17 cases in which the cardiac sign was available it was only absent in one.

The diagnoses of "not cancer" are 25 in number. The verifications will, I think, be admitted to be sufficient. In all but two of these the cardiac sign could be used, and is seen to have been present only once.

Needless to remark, the sign was never the sole ground of an opinion; I would only emphasise its great usefulness as a help.

To the details in the table I shall only add such brief notes as are necessary of the cases where a diagnosis of cancer has proved to be correct, and a

[1] A paper read at a meeting of the Devon and Exeter Medico-Chirurgical Society on Dec. 12th, 1913.

Incorrect Diagnoses (3).

No.	Sex and age.	Lesion.	Diagnosis.	Presence or absence of cardiac sign.	Verification.
1	F., 59	?	Cancer of œsophagus.	Present.	P.M. No cause found for the dysphagia.
2	F., 72	Gall-stone.	Cancer of pancreas.	Absent (heart much enlarged).	Gall-stone passed. Disappearance of symptoms.
3	M., 34	Cancer of stomach.	Ulcer of stomach.	Absent.	Operation. Fragment removed and microscoped.

Correct Diagnosis as to—

(a) Presence of Malignant Disease (22).

No.	Sex and age.	Lesion.	Presence or absence of cardiac sign.	Verification.
4	M., 40	Carcinoma of pleura.	(Heart displaced.)	Skin nodule microscoped. P.M.
5	M., 53	Intrathoracic growth.	(Heart displaced.)	Case typical. Died. Chest punctured.
6	M., 52	Lymphosarcoma of lung and spine.	(Lung involved.)	P.M. Microscoped.
7	M., 42	Abdominal sarcoma.	(Heart displaced.)	Operation. Microscoped.
8	F., 57	,, carcinoma.	(Old pleurisy.)	Operation. Skin nodules.
9	M., 51	Carcinoma of lip.	Present.	Microscoped.
10	M., 42	,, ,, ,,	,,	,,
11	M., 57	,, ,, tongue.	,,	,,
12	M., ?	,, ,, floor of mouth.	,,	,,
13	M., 68	,, ,, prostate.	,,	Clinically unmistakable.
14	F., 65	,, ,, rectum.	,,	,, ,,
15	F., 34	,, ,, peritoneum. ? ovary.	,,	Operation.
16	M., 56	,, ,, pancreas and stomach.	,,	Skin nodules microscoped. P.M.
17	M., 55	,, ,, stomach.	,,	Tumour. Occult blood. Died.
18	M., 53	,, ,, ,,	,,	Tumour. Died.
19	M., 60	,, ,, ,,	,,	,, ,,
20	M., 57	,, ,, ,,	,,	Occult blood. Died.
21	M., 44	,, ,, ,,	,,	Tumour. Died.
22	M., 49	,, ,, ,,	,,	,, ,,
23	M., 49	,, ,, ,,	,,	Operation.
24	M., 62	,, ,, ,,	*Absent.*	Tumour. Died.
25	F., 55	,, ,, ,,	Present.	Medical attendant thinks there is now no doubt.

(b) Absence of Malignant Disease (25).

26	M., 63	Probably duodenal ulcer.	Absent.	Recovery. Followed up for 6 months.
27	M., 57	,, ,, ,,	,,	,, ,, ,, 13 ,,
28	M., 80	Gastritis.	,,	,, ,, ,, 14 ,,
29	F., 66	,,	,,	,, ,, ,, 11 ,,
30	M., 42	,,	,,	,, ,, ,, 9 ,,
31	M., 42	,,	,,	,, ,, ,, 4 ,,
32	M., 61	,,	,,	Improved. ,, ,, 11 ,,
33	F., 40	Colitis.	,,	,, ,, ,, 12 ,,
34	M., 72	Colitis. Former cancer removed.	,,	Recovered. ,, ,, 10 ,,
35	M., 50	Colitis.	,,	,, ,, ,, 5 ,,
36	F., 69	,,	,,	Improved. ,, ,, 5 ,,
37	F., 60	Gall-stones.	,,	Operation.
38	M., 64	Intermittent hepatic fever.	,,	,,
39	M., 67	Recurrent appendicitis.	*Present.*	Recovery. Followed up for 10 months.
40	F., 50	Tuberculous peritonitis.	Absent.	Operation.
41	M., 59	Pernicious anæmia.	,,	Died. Typical course.
42	F., 54	Splenic anæmia.	,,	Operation.
43	F., 35	Refusal of food (melancholia).	,,	Died. No evidence of cancer developed.
44	F., 40	Uterine fibroid.	,,	Improved. Followed up for 5 months.
45	F., 55	Neurasthenia. Former cancer removed.	,,	,, ,, ,, 6 ,,
46	F., ?60	Neurasthenia.	,,	,, ,, ,, 14 ,,
47	M., 39	Gummatous liver, large and bossed.	,,	Rapidly diminished on KI and Hg.
48	F., 55	Enlarged gall-bladder, gall-stones.	,,	Operation.
49	M., 52	Gastritis.	(Aortic disease.)	Recovery. Followed up for over 12 months.
50	M., 46	Rheumatism of pelvic bones.	(Albumin.)	Improved. ,, ,, ,, 5 ,,

rather more detailed account of my mistakes, leaving wholly to the table, as sufficient, my references to the "non-cancerous" cases.

The first case of error seems to me to have presented almost insuperable difficulties; the post-mortem examination was made by a very good man, or I should have doubted the findings, and I am altogether at a loss to explain the symptoms.

The second mistake, I think, ought not to have been made. The cardiac dulness was against me for what it was worth, which, however was very little, since the heart was a large one; the history pointed to gall-stones (although such might very well have been a precursor of a growth), and the duration was very short. I fancy the daughter's death from cancer and the accounts of loss of flesh may have helped to put me off the track.

With the third mistake the case is different. Here I was in numerous and excellent company in error; for the difficulties were exceptional. But I had not had the mucus microscoped nor the vomit tested, which I clearly should have had; moreover, I think, the intractability of the disease and the sense of resistance over the pylorus and cardia should have outweighed the comparative youth of the patient, his non-cancerous appearance, and the absence of the cardiac sign.

To save space I shall allude to the recumbent cardiac dulness as the R.C.D. It goes without saying that the cases in which it has been recorded have no such invalidating accompaniments as I have explained elsewhere; where such were present (and the dulness is consequently not recorded) a note of them in brackets is added in the table. It has seemed best to omit all names in connexion with the cases.

THE CASES.

(*a*) *The Mistakes.*

CASE 1.—The patient, a married woman aged 59, had suffered for four months from dysphagia, with severe pain in the throat soon after swallowing, at the level of the top of the manubrium, and over the second dorsal vertebra. When solids were stopped the pain lessened, and got bad again when they were resumed. The thyroid seemed somewhat fixed, and was sometimes enlarged; occasionally she lost her voice, and now and then her breathing was whistling. There were small glands over the left clavicle. She hawked up strings of ropy mucus but no blood. The breath was offensive and the tongue coated. In the four months of illness she had lost a stone and a half. The abdominal skin was rather inelastic. The R.C.D. was 1⅝ inches wide. For two years she had been an invalid, with a high-tension pulse and retinal hæmorrhages. The urine was 1005, with a good trace of albumin; no sugar. Her sister had died from cancer. Post mortem no growth was discovered, nor, in fact, anything to account for the dysphagia.

CASE 2.—The patient, a married woman aged 72, was seen on July 13th, 1913. She had jaundice and a distended gall-bladder, which felt almost as large as a cricket-ball. The jaundice, which was considerable and increasing, had come on a few days previously with a good deal of abdominal pain, which persisted, chiefly in the right side. The tumour was clearly gall-bladder as the kidney could be felt behind it. There was slight shifting dulness in the flank. The abdominal skin was thin and rather inelastic. A tender swelling was palpable in the region of the pancreas. She had been losing a great deal of weight lately. Her daughter had died from cancer at the age of 40. Twenty years before she had had severe abdominal pain, but never jaundice, and the abdominal pain had often recurred since for about 12 hours at a time. Her heart was much enlarged with an apical systolic murmur conducted into the axilla; R.C.D. normal; in the erect position the dulness was much increased. She suffered periodically from heart failure and dilatation. A gall-stone was passed, the jaundice and tumour disappeared, and she is now, I understand, in her usual condition.

CASE 3.—The patient, a man aged 34, had been ill with vomiting for four months. During the first month this was only occasional in the evening, copious, but unattended by either pain or hæmorrhage. A dry diet made him worse and he began to vomit all day. He was then put to bed on milk only, which was peptonised later, and he improved for a short time. Afterwards he got worse still. Horse serum by the mouth aggravated the condition; washing out the stomach gave some temporary relief. He did not look like a cancer patient. The pulse and heart sounds were feeble, but seeing that he was vomiting almost all he swallowed that was not surprising. The R.C.D. was normal. He had, of course, lost flesh, but the skin had not the dry, inelastic feeling so common in advanced gastric cancer. The feet were not swollen. There were small palpable glands in both groins, but nowhere else. There was no family history of cancer. He had always been healthy, though easily made sick. The stomach, judging by its resonance, seemed considerably enlarged, reaching to the umbilicus; there was some resistance near the usual situation of the pylorus and a feeling of thickening about what seemed to be the middle of the organ. The liver and spleen were apparently normal. The vomit, on the day I saw him, was for the first time hæmorrhagic. It was full of mucus abundantly streaked with black altered blood. Remedies were discussed to bring him, if possible, into a better state for gastro-enterostomy. But a week latter matters had gone from bad to worse; he had had hæmorrhage badly and no food could be retained; the pulse was extremely feeble. An enema of calcium chloride, adrenalin, and tinctura opii was administered every six hours to check hæmorrhage and to help him to retain the nutrient enemata which had been rejected, and in two days, a slight rally having been secured, he was operated on as a last possible chance. The operation was well borne, but cancer was discovered.

The Other Cases.

CASE 4.—The patient, a man aged 40, had had pain in the left side with cough for two months, and when seen had dyspnœa and palpitation. Blood-stained fluid was drawn off in abundance from the left pleura several times. There was no sputum. The microscoping of a small subcutaneous nodule at once gave the diagnosis of carcinoma, which a post-mortem examination reaffirmed.

CASE 5.—The patient, a man aged 53, had been ill for a month with increasing dyspnœa, but with practically no pain, and with a subnormal temperature. The whole right side of the chest was dull, swollen, and rather puffy. The heart, however, was not displaced. There was stridor over the root of the left lung, weak voice and breath sounds over the dull area on the right, and vocal fremitus lost there. The left pulse was smaller than the right. There was considerable leucocytosis, the sputum contained suspicious looking cells, and some scanty serous blood-stained fluid, obtained from puncture of the dull side, showed large grouped granular and vacuolated cells. He was evidently *in extremis*, and died in the following night.

CASE 6.—The patient, a man aged 52, seemed a rather acute and feeble case of emphysema, until spinal symptoms developed which made the diagnosis a fairly simple matter.

CASE 7.—This was a case of round-celled sarcoma in the abdomen presenting no difficulty, and the diagnosis was confirmed by operation.

CASE 8.—The patient, an unmarried woman aged 57, presented a very curious and puzzling course, beginning as a pleurisy and going on, after an interval of two months, in which she greatly regained flesh and strength, to abdominal pain and distension. She had a large fluctuating swelling in the left lower part of the abdomen, a number of subcutaneous nodules, and a hard enlarged gland over the left clavicle. She afterwards developed two patches of secondary growth in the vagina. Operation confirmed the diagnosis of cancer.

CASES 9, 10, 11, 12, 13, and 14 call for no special comment.

CASE 15.—The patient, a married woman aged 34, had a large right ovarian cyst removed on Jan. 9th, 1913, as well as a small cyst from the left ovary, that ovary, however, being left; no malignancy was then evident. I saw her in July. Since the operation there had been soreness in the

left groin; she had not lost flesh, colour, or appetite; her pulse was good. A large elastic tumour occupied the left lower quadrant of the abdomen; the spleen was enlarged, descending about two finger-breadths below the ribs. The R.C.D. was only 1½ inches wide. Operation showed an inoperable cancerous mass with matted intestines. The enlargement of the spleen remained unexplained.

CASE 16.—The patient was a man aged 56. This case is of considerable interest, as his condition had been variously diagnosed. He had been suffering from abdominal pain and had attacks of constipation lasting three weeks at a time, so that a suspicion of sigmoid carcinoma had arisen. The sigmoidoscope, however, revealed nothing. Three weeks before I saw him he became feebler and had gastric pain after food, anorexia, and frequent vomiting, but no hæmatemesis. He was pale and had lost flesh. The motions presented no peculiarities. His R.C.D. was 1½ inches wide, but in the erect position the cardiac dulness was 6 inches wide. Two very small subcutaneous nodules less than an eighth of an inch in diameter were found. I diagnosed cancer, but was uncertain of its site, and had a nodule removed and examined.

CASE 17.—The patient, a man aged 55, had been losing weight for a year, and suffered from gnawing pain, severe at times, especially after food. There was an epigastric tumour and the stomach contents showed absence of free HCl and the fæces contained occult blood. The cardiac sign was present.

CASE 18.—The patient, a man aged 53, had for five months had indigestion and occasional vomiting, but never hæmatemesis. He had anorexia, flatulence, and great weakness. The skin seemed to have darkened somewhat, and a suspicion of Addison's disease existed. A hard nodular tumour could be felt coming down from under the left ribs. His weight had fallen in the five months from 12 st. to 9 st. 4 lb. The pulse was 96, of low tension. The R.C.D. was only ⅞ in. across. I could not satisfy myself that the skin darkening was more than such as can occur in cancer cases (although it is possible secondary deposits existed in the suprarenals); he was naturally very dark. The case went rapidly downhill. No post-mortem examination was obtainable, but before death the growth had become still larger.

CASE 19.—The patient, a man aged 60, had only complained for eight weeks of indigestion and anorexia. He had lost about a stone, he thought. A slowly increasing and now large nodular, not tender, tumour, apparently in the lesser curve of the stomach and spreading over its anterior wall, was found; a hard nodule was felt in the umbilicus, and the liver was enlarged. In spite of a rather tense pulse and slight albuminuria the R.C.D. was only 1½ inches wide. No post-mortem examination was obtainable, but his medical attendant considers from subsequent observation that the case was as we diagnosed it.

CASE 20.—The patient, a man aged 57, had epigastric pain, vomiting, and occult blood in the stools. The R.C.D. was 1⅝ inches across. Death was returned as cancer of the stomach.

CASE 21.—The patient was a man aged 44. There had been very rapid wasting for three or four months and terrible pain. The vomit was slightly blood streaked. A very tender tumour in the pyloric region was found. The R.C.D. was 1⅛ inch wide. The patient died. His medical attendant had no doubt of cancer.

CASE 22.—The patient was a man aged 49. A tender tumour occupied the site of the whole stomach. He was emaciated, very pale, and feeble. There was much continuous pain, which food scarcely affected; also constant sickness which momentarily relieved the pain. The tongue was fairly clean. There was practically no cardiac dulness. At death no doubt of the diagnosis was felt by his medical man.

CASE 23.—The patient was a man aged 49. Epigastric pain had lasted four months, and had become practically constant with severe exacerbations caused by solids. His weight had fallen from 13 st. to 9 st. 8½ lb. (in a single week 5½ lb.). A tender, hard nodular tumour was palpable in the pyloric region. The abdominal skin was thin and inelastic. The R.C.D. was only ⅞ inch. The pulse and heart sounds were feeble.

CASE 24.—The patient, a man aged 62, had been losing flesh for several months, had a well-marked tumour, nodular, and rather fixed in the epigastric region, and for three or four months had had pain and anorexia, but very little sickness and no hæmatemesis. The tongue was clean. The R.C.D. was 2½ inches wide (*no cardiac sign absent*). Both ankles had swollen. The urine was normal. Subsequent course confirmed the diagnosis.

CASE 25.—The patient, a married woman aged 55, was seen on Sept. 30th, 1913, for epigastric pain immediately after food. There was much vomiting with a great deal of mucus and great loss of flesh. The tongue was slightly furred. A tumour was felt in the situation of the spleen. There was slight leucocytosis. The R.C.D. was 1½ inches wide. The pulse was very small and weak. Her medical man writes that he thinks there can now be no doubt the case is one of cancer.

Exeter.

THE

EARLY DIAGNOSIS AND TREATMENT OF RUPTURED INTESTINE.*

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TRAUMATIC rupture of the intestine without any wound of the abdominal wall, though not frequent, is sufficiently common to call for some definiteness as to the surest guides for early diagnosis and the best methods of treatment.

Symptoms and Diagnosis.

When the intestine is ruptured as the result of a blow on or crush of the abdomen the symptoms can be considered as due to the supervention of shock, the occurrence of peritonitis, or the presence of gas or fluid in the peritoneal cavity. Different authors have laid stress upon various groups of symptoms; but in the early diagnosis it must be remembered that the picture varies greatly, and scarcely any one symptom, with the probable exception of pain, is constantly present.

Berry and Giuseppi, in their classical article, enumerate the symptoms in the order of their relative frequency as pain, vomiting, shock, local tenderness, rigidity, distension, added dulness, rising pulse, diminished liver dulness, and occasionally melæna and emphysema. To their list might be added marked restlessness, persistent superficial respiration, and pain on deep breathing.

The symptoms of shock are frequently absent in the early stages of ruptured intestine, and are often present in abdominal contusions and injuries in which the intestine is uninjured; moreover, as most surgeons wait for the subsidence of initial shock before operating in any but the most obviously urgent cases, its presence is not of such great value in early diagnosis. Curtis has pointed out that there are occasional cases in which the shock caused by the accident passes rapidly or slowly into a collapse which lasts until death. I have seen such a case in which other injuries entirely masked the symptoms of intestinal injury. It is probable that most of such cases would terminate fatally, whether operation were undertaken or not, and it would be impossible to lay down any definite rules for guidance in their treatment.

The majority of cases have to be diagnosed by the symptoms of peritonitis, of rapid or delayed onset. The main difficulty lies when the onset is delayed or masked. The early symptoms of peritonitis may be extremely equivocal. The

* Being an abstract of a paper read before the Surgical Section, Royal Society of Medicine, on Dec. 9th, 1913.

onset is often delayed after rupture of the intestine because the intestinal paresis caused by the injury inhibits peristalsis and allows time for the exudation of plastic lymph which seals the opening; abstention from food also aids the limitation of peristalsis. Then when local shock is recovered from or food is taken, peristalsis of the affected coil commences and serious leakage occurs.

Rigidity of the muscles of the abdominal wall is a valuable symptom if it persists for more than a few hours after the accident; the rigidity may be localised to a limited area of the parietes. The rigidity which results from simple contusion of the muscles tends to pass off within a few hours. Rigidity may also occur in cases of injuries to the solid viscera, in retroperitoneal hæmatomata, and in injuries to the lower part of the thorax. On the other hand, rigidity may be altogether absent in the presence of ruptured gut, as in a case in St. Mary's Hospital three years ago.

The pulse and temperature are not reliable guides in the early stages. In one case under my care the pulse was 80 and of good volume nearly 20 hours after the accident; in the other it kept at 70 for some 10 hours after. The temperature may be normal or subnormal at first, but tends to rise as peritonitis extends. But whilst pulse and temperature are of little help when normal, they are of considerable importance when above the normal. A gradual increase in the pulse hour by hour in the absence of signs of hæmorrhage is very suggestive; and Battle has called attention to the importance of an elevation of temperature. At the same time, to wait until the pulse or temperature rises to any considerable extent is like waiting until the house is well alight before trying to extinguish the flames.

Pain, when continuous and increasing in severity, is the most reliable symptom. In very few cases is it absent, and then there is usually some other definite symptom. Pain is demonstrated in four ways. First, the expression may be anxious and obviously significant of pain; secondly, pain is complained of at the site of the lesion; it is continuous, but has exacerbations. It may gradually extend or definitely shift in position. This shifting is of more value in cases of injury to the gut situated in the epigastrium; in both my patients with ruptured jejunum the maximum pain shifted from the upper to the lower abdomen. Thirdly, pain when not complained of may be evoked by deep pressure over the site of the lesion; this deep palpation is only possible when there is little or no rigidity, but if the latter be present there is usually tenderness on light pressure. Fourthly, in many cases the pelvic peritoneum as felt by rectal examination is painful to pressure; this is due to the pelvic peritonitis which follows early in hypogastric injuries, later when the upper abdomen is the site of the lesion. Abdominal pain, then, following an injury such as might conceivably cause a rupture of the intestine, and continuing for some hours with some extension of the area affected, or some definite shifting pelvicwards of the pain, is the most important symptom.

Vomiting is a frequent and important symptom, and if conjoined with pain is quite suggestive enough to justify operation. The vomiting of bilious material is said to be especially significant (Tschistosserdoff).

Distension usually signifies extensive peritonitis, and is a symptom which should not be waited for. A misleading exception to this statement is the occurrence of what has been termed "primary meteorism." Tschistosserdoff states that this is probably due to injury to the retroperitoneal nerve plexus. It affects chiefly the upper part of the abdomen, and as a rule comes on one or two hours after the injury. It is said that other symptoms indicating rupture are usually absent where primary meteorism occurs.

Diminution or absence of the liver dulness is a symptom which ought never to be waited for, but I do not think a hopeless prognosis should be given simply because that symptom is present. Gas escaping from the upper jejunum would soon pass in front of the liver, though frequently there is but little gas in the bowel. One of my successful cases had the liver dulness obliterated.

Edington has called special attention to the restlessness which may be one of the earliest indications of serious intestinal injury, but it is unlikely that this would be present without more definite symptoms; moreover, restlessness is often a marked feature of intraperitoneal hæmorrhage.

Superficial respiration is the natural consequence of commencing peritonitis because of the pain which ensues if a deep breath be taken; it would be unlikely to be present without abdominal pain and rigidity. The signs of free fluid are not, as a rule, present in the early period, for it is exceptional for free escape of fluid bowel contents to occur at first, and the fluid due to peritonitic exudation collects later and tends to accumulate in the pelvis, where there is difficulty in demonstrating its presence.

Providing there be no lesion in the chest and that renal trauma is excluded I would submit that it would be advisable to open the abdomen on the suspicion of ruptured intestine if the following conditions be present: (1) When severe abdominal pain persists for more than about six hours after an injury, if the pain be accompanied by either (*a*) vomiting, especially bilious vomiting; or (*b*) a pulse gradually rising from the normal; or (*c*) persistent local rigidity tending to extend; or (*d*) deep local tenderness with shallow respiration; and (2) when abdominal pain is absent or only slight, but the pulse rises steadily hour by hour and the patient is very restless or listless. When marked diminution of the liver dulness occurs with any of the above symptoms, or if there be signs of free fluid in the abdomen, the indications for operation would be imperative.

Treatment.

Since the memorable case of Croft in 1889 the recognised treatment of ruptured intestine has been by operation. Various methods of closing the rent have been adopted, but it is agreed that the best plan is to suture it if possible. If the tear be too large for successful suture without narrowing the lumen of the bowel dangerously a lateral anastomosis may be done; whilst in many cases resection of the affected part is clearly required. If the duodeno-jejunal junction be the part affected a gastro-jejunostomy should be performed.

The site of the incision should be near the middle line in the epigastrium or hypogastrium, according to the position of the injury or physical signs. The injured gut is readily indicated by the gluing together of the neighbouring coils. The usual procedures for protecting the abdominal wall and the rest of the abdominal cavity should be adopted.

The main points of difference between surgeons

is as to the toilet of the peritoneum. The questions at issue are: (1) Should general or local irrigation be adopted, or should dry sponging or even no cleansing of the peritoneum be attempted? (2) Should drainage be adopted. In Croft's pioneer case the peritoneum was carefully purified with hot boric solution 20 per cent. in strength; no drainage was employed. Since then some surgeons have washed out the peritoneal cavity with warm sterile water or saline solution, whilst others have sponged away the contaminating material; the majority appear to have favoured irrigation. The most extreme advocate of this procedure appears to be Wyllys Andrews. By this method, coupled with drainage, he saved 3 out of 5 cases; but it should be noted that the successful cases were operated on respectively seven, five, and five and a half hours after the accident. Doyen is against general washing out. Stone, who had two successful cases, says that better results are obtained without irrigations unless there be gross soiling.

Combining the results in the latest consecutive series of cases published by Berry and Giuseppi and by Tschistosserdoff we find that 12 out of 53 irrigated cases recovered, whilst of 48 non-irrigated cases 10 were successful. But we find that of the cases operated on within six hours of the accident 4 out of 10 irrigated cases got well, but of the non-irrigated cases 4 out of 7 recovered. There are several reasons why copious irrigation in an early case is likely to retard rather than promote recovery. In the first place the infection at the time of the operation is seldom general, though it may be diffuse. Thorough irrigation is in our opinion likely to wash away protective lymph and to spread infection just in proportion to its thoroughness. Washing only reduces the number of organisms, but a few organisms spread over a wide area are surely most likely to cause serious trouble than a greater number which are localised, provided drainage be established. A somewhat instructive parallel is afforded by perforative appendicitis; at one time many surgeons practised irrigation for these cases; now there are few or none who advocate this treatment. The shock of the operation also is probably increased both by the stimulus of the saline on the peritoneum and the cooling of the patient owing to his skin getting wetted by escaping saline. For local irrigation there is more to be said; but it is doubtful whether it has any advantage over dry sponging. Against dry sponging it can be argued that there is a likelihood that the peritoneal endothelium may be injured; but if carried out carefully and the area sponged be strictly limited to the obviously infected parts it is unlikely that anything but good can follow. Both my cases operated on 20 and 23 hours after the accident were successfully treated by this method.

Concerning drainage practice differs considerably. In his original case Croft did not drain the abdomen. Since then drainage has been carried out more frequently than not. The evidence of Berry's statistics is distinctly against drainage; of 30 cases treated by suture and drainage only 9 got well, whilst of 17 in which no drainage was considered advisable as many as 7 recovered. It is more likely, however, that the worst cases would be drained. In general it is probably better to drain if there has been any appreciable soiling of the peritoneum. In one of my cases I sewed up completely the epigastric incision through which I had done the suturing of the gut and instituted pelvic drainage; although much extravasation of intestinal contents had occurred the upper incision healed by first intention. The adoption of the Fowler position and the giving of saline solution are important points in the after-treatment. Radcliffe has proposed the performance of appendicostomy in order to introduce saline solution, but there does not appear to be any advantage in this.

The conclusions that might be gathered from the above are: (1) That irrigation with saline solution is inadvisable in cases operated on early, and that with late cases the matter is not of much consequence; and (2) that drainage is probably the safest plan.

Notes of Two Cases of Traumatic Subcutaneous Rupture of the Jejunum.

CASE 1.—A girl, aged 20, was riding a bicycle at 9.30 P.M. on July 16th, 1912, when a motor knocked her off her bicycle, the handle-bar striking her in the left hypochondrium. The motor also passed over her left ankle. She was able to proceed home, but about 1½ hours later began to have abdominal pain. She vomited for the first time at 1.30 A.M. on the 17th, and came to the hospital a few hours later as the abdominal pain continued. On admission she had an injury to the left leg. She complained of pain in the left hypochondrium, but the abdominal signs were indefinite. She did not vomit after admission. During the day the abdominal pain increased and was felt more in the hypogastrium. The temperature was 101·2° F., but the pulse, at one time 108, came down during the day to 80.

At 5 P.M. on the 17th I was called to see her. At that time the lower abdomen was rigid, tender, and immobile on respiration. She complained of pain in the left hypochondrium. No vomiting, but some nausea. Pulse rate 80, with quite good strength and volume. Per rectum marked tenderness of the pelvic peritoneum. No blood in urine, which was passed naturally. Temperature 102°.

Operation was performed at 5.30 P.M. on the 17th—i.e., 20 hours after the accident. A suprapubic median incision was first made. The pelvis was full of a greenish fluid, which proved to have an alkaline reaction. A little gas also escaped. No cause for this was found in the pelvis. A large tube was inserted into the pelvis and a second incision made in the epigastric region. The stomach was normal, but a considerable amount of coagulated lymph was discovered, gluing the jejunal coils together, in the left hypochondriac region. A small ecchymosis was seen on one coil. The affected part of the intestine was brought outside the abdomen and carefully isolated. On breaking down the lymph adhesions a complete perforation of the gut of the size of a threepenny-bit was found on the antimesenteric border. The mucous membrane was pouting into the opening, and greenish intestinal contents were escaping. The gut was clamped on both sides of the opening, and the perforation closed by (1) catgut through all coats, (2) fine silk purse-string suture, and (3) interrupted catgut Lembert sutures. Before suturing the mucous membrane at the edges of the tear was trimmed. The epigastric incision was sewn up without drainage.

In the after-treatment the Fowler position and rectal continuous saline injection were adopted. The epigastric incision healed by first intention, and though the temperature remained up for a few days convalescence was uneventful. She left hospital in five weeks' time. In November, 1912, I had to operate on her for acute appendicitis, when I found the site of rupture well healed with no constriction.

CASE 2.—A man, aged 30, was admitted to St. Mary's Hospital on Oct. 27th, 1912. He stated that he was wheeling a barrow when a taxi-cab coming from behind struck him and threw him against the barrow, the framework of which pressed sharply against his abdomen at the level of the navel. At the time of the accident (12.45 A.M.) the pain was acute, but when admitted (2 A.M.) he only complained of slight local soreness. Examination showed no bruising of the abdominal wall, which, however, did not move to the full extent on respiration. There was slight epigastric tenderness. Pulse 60, temperature 97·6° F.

I saw the patient for the first time at 10 A.M., when his expression was slightly anxious; the pulse was 70. There

was no more abdominal rigidity than might be accounted for by local bruising, but the pain was said to be greater; liver dulness in no way diminished. I gave instructions for the pulse to be taken every hour, and asked the house surgeon to send for me should any more serious symptoms develop. I was summoned at 9 P.M. because the symptoms had become more marked. The patient was then obviously in need of surgical intervention. Pulse 108, temperature 99·6°. He had vomited thrice during the day. The abdominal wall was rigid and did not move with respiration. Pain was severe and was now more marked in the hypogastric zone. As felt per rectum the pelvic peritoneum was tender. There was no distension, but the liver dulness was obliterated. The urine was in no way abnormal.

Operation was undertaken 20 hours after the accident. A vertical epigastric incision of 3 inches, just to the left of the middle line, gave a good approach. The peritoneal cavity was full of fæculent material and gas. A perforation on the antimesenteric border of the jejunum about 2 feet from the duodeno-jejunal junction was sewn up with two layers of sutures. The tear was of about the size of a threepenny bit, and the mucous membrane had pouted into the opening so as to occlude it partially. Plastic lymph had also helped to limit the escape of the intestinal contents. The epigastric incision was sewn up in layers, but a large drainage-tube was inserted into the pelvis by a suprapubic incision. No irrigation was performed.

After the operation the patient was propped up and given large quantities of saline both subcutaneously and per rectum. For a week he was in danger of his life; the epigastric incision broke down and had to be brought together by strapping. The temperature was above normal for a fortnight, but the highest record was 101·6°. He left hospital quite well on Dec. 12th, having been in hospital for 6½ weeks, and has remained well up to the present time.

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THE QUESTION OF "CONCUBITANCY" IN COUSIN MARRIAGES.

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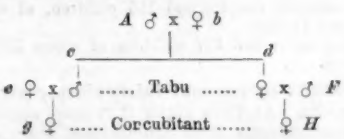
IN an article entitled "The General Practitioner and Deaf Mutism"[1] MacKay suggested a possible explanation of the somewhat divergent opinions of those who have studied the subject of consanguineous marriage, based upon the investigations of Basil H. Thomson into the marriage customs of Fiji. Thomson's original paper, "Concubitancy in the Classificatory System of Relationship"[2] approaches the Fijian system of relationship from the point of view of compulsory or obligatory marriage, round which central idea the system practised in Fiji appears to circle. There are two systems of kinship nomenclature current amongst this race, one indicating consanguinity, and the other kinship in relation to marriage. Among the latter is *gane*, which is the relationship of a male and female of the same generation between whom marriage is forbidden—i.e., brother and sister, both real and artificial. Thomson calls these *tabu*. This tabu relationship occurs: (1) between the son and daughter of the same parents; (2) between children respectively of two brothers or the children respectively of two sisters, such children being male and female. From the Fijian point of view this relationship is exactly the same in both cases. The father's brother and the mother's sister share with the father and mother an almost equal degree of paternity. Those whose kinship is such as to make them marriageable are called by the natives *veindavolani* (*vei*, affix of reciprocity; *davo*, to lie down), or, as Thomson terms it, *concubitant*. It occurs between persons whose parents respectively were brother and sister. The opposition of sex in the parents not only breaks down the barrier of consanguinity, but even constitutes the child of the one a marital complement of the child of the other. The young Fijian is from his birth regarded as the natural husband of the daughters of his father's sister and of his mother's brother. The girls can exercise no choice; they were born the property of their male concubitant if he desires to take them. Thus the custom if generally followed would enclose the blood of each family within itself, and obstruct the influx of a new strain at every third generation. The natural tendency towards the renovation of the blood would be checked and its stagnation be continued. Thus:—



Had *d* been a male who had married *F* a female, their children *g* and *H* would have been tabu. It will thus be seen that the concubitant and tabu alternate generation after generation. The children of concubitants must be tabu, and the children respectively of tabu must be concubitant. If concubitants do not marry, the system takes no note of it and their children are tabu. The most striking feature in the system is this oppressive intolerance. Although the practice has decreased with Christianity and settled government, 30 per cent. still marry their concubitants. Most of the remainder appear now to commit adultery; 50 per cent. of the cases of adultery are concubitant.

The origin of this marriage custom is not discussed by Thomson, who is concerned rather with its results. According to statistics gathered from a census taken of 12 villages, chosen from widely separated provinces and dealing with 448 families, concubitant marriages are greatly superior to any of other classes in *relative fecundity* and in *relative vitality*. The figures given are as follows:—

133 concubitant couples had 438 children, of whom 232 survived and 206 died.

55 families of relations had 168 children, of whom 72 survived and 96 died.

144 families of townspeople had 390 children, of whom 212 survived and 178 died.

116 families of natives of different towns had 321 children, of whom 163 survived and 158 died.

Thus the relations of other than concubitants show the highest fecundity next to the concubitants, but their rate of vitality was the lowest of the four classes. It is remarkable that the two extremes of vitality should occur in the two classes in which inbreeding prevails. Possibly it is to be accounted for by the better care of concubitants' offspring, as other relational marriages, being regarded as incestuous, care less for their children.

Thomson thus summarises the points of interest.

[1] The Practitioner, October, 1908.
[2] Journal of the Anthropological Institute, vol. xxiv.

Is the classificatory system of relationships, after all, more logical than our own? Is there really a wide physical difference between the relationship of cousins who are offspring of a brother and sister respectively and that of cousins whose parents respectively are two brothers or two sisters? Ought marriage in the one case to be allowed or even encouraged, and in the other case as rigidly forbidden as if it were incestuous?

With a view to ascertaining whether this classification of consanguineous marriages is really important, I collected recently statistics relating to 68 marriages of first cousins, and I propose to give here a short analysis of their study. I take this opportunity to thank those gentlemen who, in response to a request published in THE LANCET and *British Medical Journal*, kindly sent me information from various parts of the United Kingdom, France, Germany, China, and Portugal. The material at my disposal comprises 61 families, of which 57 showed one consanguineous marriage each, 2 showed two such marriages each, 1 showed three and 1 four. The total number of cousin marriages thus represented was 68, of which 33 were concubitant and 35 were tabu. Following Thomson's method of showing relative fecundity and relative vitality—

33 concubitant couples had 165 children, of whom 146 survived and 11 died.

35 tabu couples had 137 children, of whom 108 survived and 29 died.

These results correspond fairly closely with those of Thomson. At first sight it would appear from both investigations that concubitant marriages are greatly superior, but when the averages are taken the difference is not anything like so marked.

Average Fecundity and Vitality.

Thomson's Cases.

133 concubitant couples averaged 3·29 children, of whom 1·74 survived and 1·54 died.

55 tabu couples averaged 3·05 children, of whom 1·30 survived and 1·74 died.

Author's Cases.

33 concubitant couples averaged 5·00 children, of whom 4·42 survived and 0·33 died.

35 tabu couples averaged 3·62 children, of whom 3·08 survived and 0·82 died.

It will be noted that the averages of the two sets of examples correspond, but that any superiority of fecundity is accentuated in my own figures. The greater vitality shown in both concubitant and tabu families in the latter examples is probably due to the fact that my figures relate entirely to civilised peoples, which presupposes greater care of offspring, whilst Thomson deals only with a savage race. Moreover, consanguineous marriages amongst civilised peoples being contracted without any reference to concubitancy or the reverse, care of offspring would not be likely to be greater in one more than the other.

As regards the influence of concubitancy as a factor of importance in the occurrence of deaf-birth, the evidence afforded by my cases is inconclusive. Of the 68 first cousin marriages, 26 showed deaf-birth, of whom 15 were concubitant and 11 tabu. Reliable evidence of deaf-birth in other generations or in collateral branches was obtainable in only two instances (both concubitant). Of the remainder, most of the deaf-births were probably sporadic; some may have been really cases of early acquired deafness from such causes as meningitis, syphilis, &c. Syphilis, too, may have accounted for a proportion of those born deaf. Except in the two examples mentioned, the hereditary nature of the deafness was, therefore, extremely doubtful. Analysis of the cases gives the following results:—

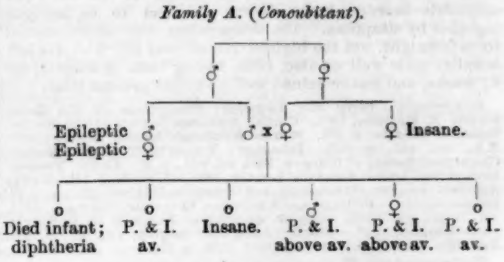
15 concubitant couples had 83 children, of whom 71 survived and 22 were deaf. Averages: 5·53 children, of whom 4·73 survived and 1·46 were deaf.

11 tabu couples had 48 children, of whom 38 survived and 15 were deaf. Averages: 4·36 children, of whom 3·45 survived and 1·36 were deaf.

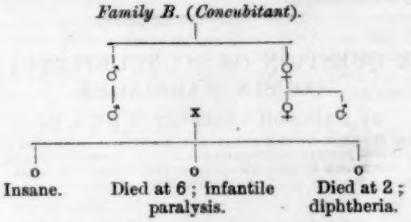
The concubitants therefore showed a greater proportion of deaf-births. The results are, however, of very little value in determining the influence of concubitancy as a factor influencing the production of deafness in consanguineous marriages. It is already well known that consanguineous marriages of the *hereditarily deaf* produce a greater proportion of deaf-births than do those in which the parents are not related.

From these results and from an examination of the family trees of my 68 first cousin marriages, I am inclined to the opinion that concubitancy or the reverse is of little influence, and that the results of such marriages is largely a question of *stock*. I have selected eight examples to illustrate this conclusion. (In these trees P. = physique; I. = intelligence; av. = average.)

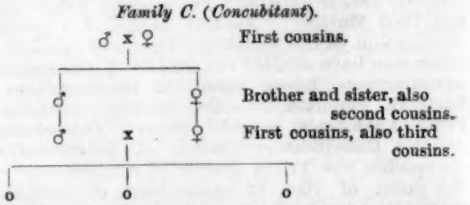
Family A. (Concubitant).



Family B. (Concubitant).

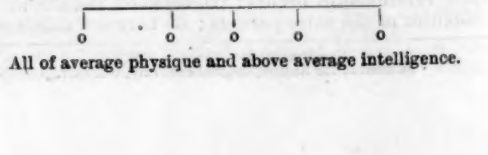


Family C. (Concubitant).

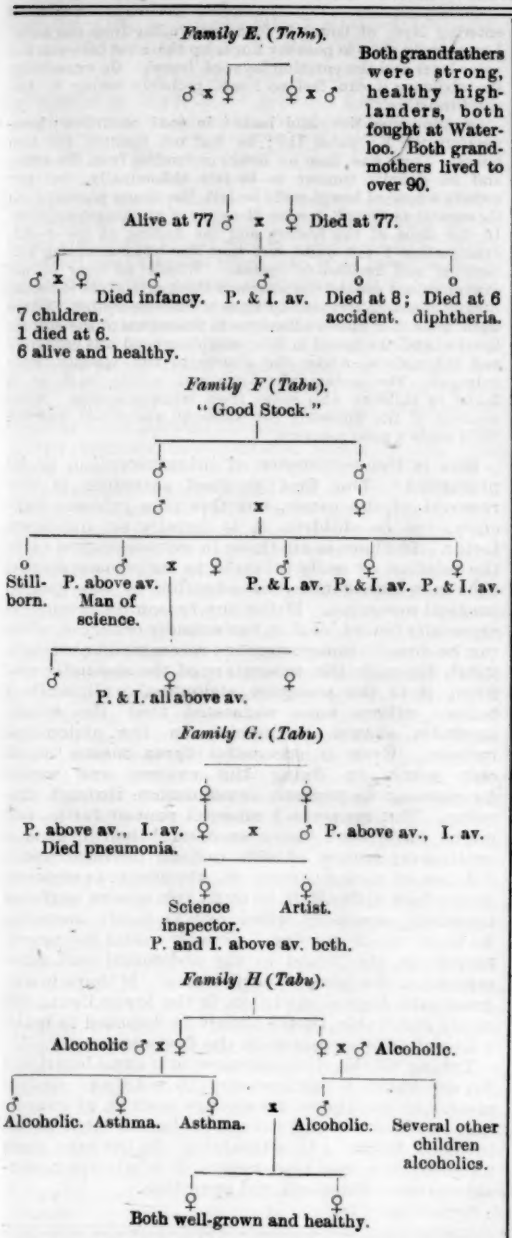


A family all of whose members are notable for physical beauty. They are tall, well-developed, normal people, without a trace amongst them of neurosis or degeneracy.

Family D. (Concubitant).



All of average physique and above average intelligence.



These eight examples show instances of good and bad stock in both concubitant and tabu families, and suggest that quality of stock is all-important. Arguing upon Mendelian lines, if the stock is good and free from taint of hereditary deafness, there is no reason why the offspring of a consanguineous marriage should show deafness, because that character (shown by Kerr Love to be recessive) is not present; whereas, if deafness should happen to be present as a family taint, the union of two blood relations, both of whom may carry—although they may themselves be hearing—the recessive character in their germ cells, would be likely to accentuate it, and recessive offspring would occur with a frequency which would follow the Mendelian hypothesis. That is to say, they would act as "impure dominants," giving rise to three dominants to one recessive, of which the recessives would breed true and of the three dominants two would be impure.

Queen Anne-street, W.

RECURRENT INTUSSUSCEPTION:

THE RECORD OF A CASE WHICH WAS OPERATED UPON THREE TIMES.

BY G. GREY TURNER, M.S. DURH., F.R.C.S. ENG.,

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I HAVE been prompted to record the following cases as the result of reading an annotation on the subject in THE LANCET of Dec. 20th, 1913.

The patient (Reg. No. 1040) first came under my care at the Royal Infirmary on June 13th, 1907, being at that time 8 months old. On the day preceding admission the baby vomited and was rather restless during the night. About 4 A.M. he awakened suddenly, and the mother thought he looked very pale and ill. The bowels were moved, and blood was noticed on the napkin. From this time the child kept tossing about and crying. At 11 A.M. a medical man saw the patient and, finding an intussusception per rectum, sent the child straight into hospital, where I operated at 1 P.M. The invagination extended from the ileo-cæcal valve to the rectum; the appendix was not involved, so that it was of the ileo-colic variety. Reduction was effected by manipulation, but to complete the process it was necessary to bring the involved bowel outside the abdomen. The lower end of the ileum was found to be much thickened, and there was a very definite indentation at one point, while the glands in the mesentery were enlarged. The child made an uninterrupted recovery, and in July was seen and found to be perfectly well in every way.

On Oct. 8th of the same year the child was again admitted with a recurrence of the intussusception. He had been very well until the day of admission at 3 P.M., when he had an attack of abdominal pain and passed blood per rectum. When seen the patient was found to be in good condition, but was evidently uneasy in the abdomen, and a mass could be felt in the epigastrium, but there was nothing per rectum. At 9 P.M. I opened the abdomen through the old incision. The intussusception was of the same variety as before, the ileum entering the large bowel as far as the middle of the transverse colon. This time reduction was very easy. The lower two inches of the ileum were very much congested and thickened, and felt almost as though there might be a polypoid growth inside. The bowel was opened at this point, and a small portion removed for microscopic examination; there was no polypus, but the wall was much thickened. At the same time an enlarged gland was removed from the mesentery. Under the microscope both gland and bowel only showed evidences of inflammatory œdema and congestion, but neither was stained for the tubercle bacillus. In the hope of preventing a recurrence of the invagination the lower four inches of the ileum was stitched closely to the cæcum in front of the mesentery, interrupted suture of fine chromicised catgut being used. The abdomen was closed with through-and-through silkworm gut sutures, and again the child made a good recovery.

On May 30th, 1908, just about a year after the first operation, this patient was again admitted with a recurrence of his previous symptoms. Since the last operation he had kept very well until noon of the day before admission, when the mother noticed that the child held the abdomen as if in pain, but did not vomit. The bowels were moved naturally, and he passed a good night. All went well until about two hours before admission, when he passed blood and vomited, and from that time there had been continuous straining and further vomiting. When admitted the patient was found to be a big, fat, strong-looking boy in good condition. A mass typical of intussusception was felt in the abdomen, but nothing per rectum. For the third time the abdomen was opened by an incision through the old scar. The intussusception extended from the ileo-cæcal valve to the middle

of the transverse colon, and was easily reduced. The suture of the ileum to the cæcum had not held firmly, though there were long flimsy adhesions between the two. There were two or three undoubted tuberculous ulcers in the ileum, with tubercles on the peritoneum over their site; and one of these, that nearest to the ileo-cæcal valve where the bowel had been previously incised, had formed the apex of the intussusception, as it was very much indented in the centre and much thickened. There was also a large mass of tuberculous glands in the mesentery of the lower ileum. In order to short-circuit the affected intestine, and also to provide against recurrence if possible, a lateral anastomosis by direct suture was made between the ileum above the ulcers—i.e., 18 inches from the cæcum—and the transverse colon. The abdomen was again closed with through-and-through silkworm gut, and recovery was without incident.

In the light of the above findings the gland and piece of bowel removed at the second operation were re-examined, but there were no appearances that might fairly be interpreted as being due to tubercle.

In June of 1913 the mother brought the patient to the hospital at my request. He was then a well-nourished, healthy boy between 6 and 7, and had never had a bad symptom since the last operation. The bowels acted regularly, and the abdominal scar was very strong.

The case is a good example of a recurring intussusception, which is a rare condition, though I see no reason why it should be so. For me the especial interest is in connexion with the causation of intussusception. Most operators have noted the thickened, indented area in the last few inches of the ileum. I have often thought that this area probably represented an early tuberculous invasion of the bowel wall, and in several cases I have also observed the presence of tuberculous glands in the mesentery. In the case under discussion the condition at the second operation strongly suggested tubercle, and the findings at the third operation left no doubt as to the tuberculous factor in this particular case.

If an early intestinal tuberculosis is commonly the cause of intussusception it may also explain the infrequence of recurrence, because of the well-known influence of laparotomy on abdominal tubercle. Why the disease should have steadily progressed in this case I do not know.

In another case there was evidently a recurrent intussusception which underwent "spontaneous reduction," a rare event of which I have previously recorded an example.[1]

The patient (Reg. No. 2872), aged 7 months, was admitted to the infirmary on April 20th, 1910. There had been a sudden attack of screaming and kicking at 10 A.M., and at 2 P.M. vomiting commenced and had been continuous since. Castor oil was given at 3 P.M., and at 4 P.M. blood and mucus were passed per anum. On admission at 8 P.M. the child looked in good condition, but was having an attack of pain. A sausage-shaped tumour, which hardened and relaxed, could easily be felt in the left iliac region. I operated at once, the abdomen being opened by a median incision below the umbilicus. The intussusception extended from the ileo-cæcal valve to the rectum; it was of the ileo-cæcal and ileo-colic variety. The indentation of its commencement was in the anterior surface of the cæcum, and not in the ileum. The invagination was easily reduced. The abdominal wall was closed with through-and-through silkworm gut sutures, and the patient made a good recovery.

This child was readmitted on July 28th, 1911, apparently with a recurrence of the intussusception. He had been seen by Dr. E. D. Smith, of Swalwell, one of our old house surgeons, who sent him into hospital with the following note: "This child has had diarrhœa for the last two days. To-day he was playing in a field, but came home at 2 o'clock vomiting, and when he was taken up his legs were covered with blood. I saw him at 2.45, and on examination the entering layer of bowel is found protruding from the anus. I was easily able to pass my finger up the anus between the outer layer and the entering layer of bowel. On examining the abdomen I can feel no lump, probably owing to the child resisting."

On admission the child looked in good condition; temperature 98° F., pulse 118; he had not vomited for two hours. There was then no bowel protruding from the anus, and no definite tumour to be felt abdominally, but per rectum a cone of bowel could be felt, the finger passing into its summit as though it were the apex of an intussusception. In the light of the history and the finding of the rectal examination I felt quite sure that the intussusception had recurred and decided to operate. Within an hour of my examination I opened the abdomen through the old incision. A careful search revealed no signs of intussusception. There were some few flimsy adhesions in the region of the splenic flexure, and the bowel in this neighbourhood was reddened and œdematous, while the glands in the vicinity were enlarged. The cæcum was large and mobile, such as is found in children who suffer from intussusception. After removal of the appendix the abdomen was closed, and the child made a good recovery.

How is the recurrence of intussusception to be prevented? The first surgical principle is the removal of the cause, but this is a primary difficulty, for in children it is usually an unknown factor. If there is anything in my suggestion as to the relation of early tubercle to intussusception it does not necessitate the adoption of any special surgical measures. If for any reason recurrence is especially feared, or if it has actually occurred, what can be done? Some surgeons recommend putting a stitch through the mesentery of the appendix and fixing it to the posterior abdominal wall, while I believe others have suggested that the whole appendix should be buried in the abdominal incision. Even if successful these means could only result in fixing the cæcum, and would do nothing to prevent invagination through the valve. The measure I adopted proved futile, but might have been more successful had I used a continuous suture of silk instead of interrupted stitches of catgut; even so, abundant experience shows how difficult it is to fix two serous surfaces together, especially when one is freely movable. To be of much service I fancy it would be necessary to fix the bowel to the abdominal wall after separating the parietal peritoneum. If there is any gross pathological condition in the lower ileum not easily removable, then I should be disposed to make a lateral anastomosis as in the first case.

Taking all the circumstances into consideration I do not think it is necessary to take any special means to anticipate recurrence (except, of course, the removal of any causative factor, such as an inverted Meckel's diverticulum). In the rare cases in which the condition recurs it is always amenable to early diagnosis and operation.

Newcastle-upon-Tyne.

[1] A Note on Intussusception in Children, Northumberland and Durham Medical Journal, February, 1903.

LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN: UNIVERSITY OF LONDON.—The council have appointed Mrs. E. Flemming, M.D., B S. Lond., to the half-lectureship in medicine, and Mr. Malcolm L. Hepburn, M.D. Lond., F.R.C.S. Eng., to the half-lectureship in ophthalmology. Two St. Dunstan's exhibitions of the value of £60 a year each for five years, the Isabel Thorne scholarship of the value of £30, and the Mabel Sharman-Crawford scholarship of the value of £20 a year for four years will be awarded on the results of an examination to be held in July next. A bursary for dental students of the value of £60 will also be awarded for the course beginning October, 1914. Further particulars can be obtained on application to the secretary, 8, Hunter-street, Brunswick-square, W.C.

NOTES ON A CASE OF EXTRA-UTERINE PREGNANCY IN A RUDIMENTARY FALLOPIAN TUBE.

BY DONALD DUFF, F.R.C.S. EDIN., F.R.F.P.S. GLASG.,
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CASES of extra-uterine pregnancy are sufficiently common, so that one would expect the cause of the condition to be understood at this time of day when so much pathological work has been undertaken in connexion with the female pelvic organs. We are, however, no nearer the actual reason why pregnancy should take place ectopically in a large number of cases. Why a woman should bear children normally for a pregnancy or two and the following pregnancy should be abnormal in its site is a problem yet to be solved in these cases where there is no detectable occlusion of the uterine end of the tube or demonstrable lesion in the tube itself.

As a general surgeon, and not in the practice of obstetrics, I cannot claim to be able to throw any light on the causation of ectopic pregnancy, but the case I now report is of much interest to surgeons and obstetricians alike, not only on account of its rarity, but as showing that fatal hæmorrhage may result from a small, apparently unimportant source of bleeding within the abdominal cavity. The history and details of the case are as follows.

The patient was admitted to the surgical wards in the Glasgow Royal Infirmary on May 27th, 1910, complaining of severe pain over the lower part of the abdomen; the pain had been present only a few hours, was severe in character, and accompanied by sickness, but she had not vomited. She was somewhat collapsed, restless, and had marked pallor. She had passed her normal menstrual period by three days only. The temperature was 97° F. and the pulse 110; the abdomen was considerably distended, and tenderness was present in the lower zone. Rigidity was not a marked feature. Bimanual examination revealed a boggy mass in the left fornix.

She was taken to the operating theatre immediately and the abdomen was opened in the middle line. A considerable quantity of free blood was present within the abdominal cavity. The right appendages were found to be absent; no trace of ovary or tube could be found. On the left side a mass, rounded and fluctuant, was felt, and this at first was thought to be the gestation sac of an extra-uterine pregnancy. The tube and infundibulo-pelvic ligament were rapidly clamped, and on further investigation the mass proved to be blood-clot with some fluid blood in its centre. The right side of the pelvis was again explored, but all that could be detected as representing the annexa on that side was a small, red, thickened spot over the right cornu of the uterus. I thought the case was one of left tubal abortion, and I rapidly removed the clamped tube together with the ovary, cleared out the remaining clot, and closed the abdomen in layers, the whole operation being completed in 15 or 20 minutes.

The removed left annexa were subsequently examined, but I could detect nothing abnormal, and the case remained for the time a puzzle. The patient was placed in the Fowler position and treated with salines, but she did not survive beyond 50 hours after the operation.

A post-mortem examination was made by Professor J. H. Teacher, and a specimen has been prepared by him showing the abnormal uterus. He has also prepared sections from the rudimentary tube. His specimen shows features of considerable interest. On the right side there is absence of the mesosalpinx, and the right tube is represented by a small thickening at the uterine cornu. The post-mortem report states that the uterus is distinctly enlarged and has a thick decidual endometrium, but no ovum is visible. The left appendages, which had been removed, showed a small tortuous tube. The ovary is large and smooth with some blood on its surface; the enlargement is due to a corpus luteum cyst situated at the uterine end and a recent corpus luteum at its outer pole. No pregnancy can be detected on this side. The right ovary could not be found, and the right tube was represented by a thick fusiform stump set on the top of the right cornu rather than in the normal line of the tube, and the upper surface of this shows an area of blood clot a quarter of an inch in diameter. This body appears to be a tubal ovum. Microscopic sections of the thickening at the right cornu show this to be a small deformed tube containing fragments of an early ovum—villi, plasmodial masses, and the characteristic wall of an early implantation cavity.

There are several points of interest in this case. That the condition is rare will readily be admitted. I have not been able to find reference to an exactly similar case in a search through a considerable portion of the literature on ectopic pregnancy. The cases recorded of this malformation of the tube are few. There have been noted cases of supernumerary tubes. Accessory ostia have been seen in about 3 to 5 per cent. of cases. Accessory fimbria have been seen; abnormalities in length have been noted, especially in connexion with ovarian hernia. Absence of the tube when it occurs is most frequently unilateral and associated with uterus unicornis. A case has been recorded in which the uterus and vagina were well developed as in the present case, but the right tube and ovary were absent. When the ovary is absent there is usually tubal defect as well, but this is not invariably the case. Williams and Ballantyne have noted a case where there was absence of the outer two-thirds of the tube, and Marchand a case where in addition the ovary was absent. The cause of these abnormalities of the tube has been asserted to be fœtal peritonitis. In my case the uterus is well developed, but the whole of the right tube—except a very small stump—and the right ovary are absent. The deformity is of sufficient note to warrant the publication of the case, and the interest is considerably added to when gestation has occurred in the rudimentary tube. Obviously this is a case where the ovum has migrated from the left side, and there remains the additional proof, the presence of a recent corpus luteum in the left ovary. A question arises as to how the ovum gained entrance to the rudimentary tube. In the case noted by Ballantyne and Williams the outer end of the rudimentary tube had no opening, and no definite outer opening was seen in the present case, although of course it may have been closed after the impregnated ovum became imbedded. Was this a case where an ovum fertilised in the abdominal cavity attached itself to the rudimentary structure representing the tube?

A point of much importance from the point of view of treatment is the hæmorrhage which took

place from the small vessels in the wall of the malformed tube. This bleeding was the cause of the fatal termination. At the operation the site of the hæmorrhage was not apparent, and certainly no free bleeding was taking place when the parts were inspected immediately before closing the abdominal cavity. Bleeding had, however, taken place afresh as shown post mortem. In a similar case the obvious treatment would be to excise the gestation area with a wedge-shaped incision and stitch the edges together.

Glasgow.

A CASE OF SCHISTOSOMIASIS JAPONICA.[1]

BY H. WHITE, M.R.C.S. ENG., L.R.C.P. LOND.,
SURGEON, R.N.

TOWARDS the end of the spring of 1913 whilst serving in H.M.S. *Cadmus* in the Yangtse River, I had on board a case of this disease, which is of somewhat rare occurrence among white people, although quite common among the Chinese and Japanese. The patient belonged to the ship, and the following is the history of the case.

On June 10th the patient came to me complaining of pains in the lumbar and epigastric regions and that he had not been feeling well for some days previously and had eaten nothing for two days. On examination he had a temperature of 103·4° F. and a pulse-rate of 90. No physical signs in the chest were observed, but there was very slight tenderness in the epigastric region. The spleen was not palpable; a blood film examined for malaria was negative and Widal's serum reaction was also negative. A differential white cell count showed an extraordinary increase of eosinophiles amounting to 56 per cent. The patient was kept in bed on low diet, the morning temperature being 99·4°. Two days later a small patch of urticaria appeared in the hypogastric region to the right of the mid-line; the next day it had faded, and a similar patch came out to the left of the mid-line. Stools were examined for ova, and one of ascaris was found; this, however, would hardly account for the great eosinophilia present. Schistosomiasis was suspected, so the patient was sent to the Catholic Mission Hospital at Hankow, where we happened to be stationed. Here he was placed under the care of Dr. R. Aird, to whom I turned him over. By the courtesy of Dr. Aird I was enabled to follow the case. Santonin (gr. 5) was given, and one ascaris was passed. The stools were examined daily for the schistosomum ova; after four days they were present, which was one week after the onset of the symptoms. The temperature continued of the septic type, ranging from normal or subnormal in the morning to upwards of 102° in the evening.

The treatment tried was varied, as so little is know of this disease. Anthelmintics were given, such as santonin and felix mas, all to no purpose. Injections of quinine hydrochloride and a course of arsenic were also tried. No drug seems to affect the course of the disease. The patient steadily lost weight and became somewhat emaciated. The fever subsided very gradually, taking over six weeks to reach normal. A blood count done weekly showed eosinophilia varying from 50 to 70 per cent. After six weeks at Hanknow he was sent to the naval sick quarters at Wei-hei-Wei to convalesce, and returned to the ship a month later, looking very thin and ill, the eosinophilia being 47 per cent. After rejoining he suffered from pains in the legs when standing for a short time, and noticed that his hair was falling out. As he was somewhat anæmic (red cells 4,800,000) I prescribed some iron and arsenic. A big improvement in his general health followed, and his hair ceased to fall. As we were then at Hong-Kong refitting I sent him up to the Naval Hospital to have his stools examined to see if they were free from ova; the examination revealed the presence of ova of ascaris and trichocephalus dispar. Extract of male fern was given, but no worms were passed. Further frequent examinations of the stools proved them to be free from ova, so the patient was returned to the ship.

This infection is only found in the Yangtse Valley above Kiukiang, sufferers from it being those who have had some connexion with the waters from the paddy fields, such as people who earn a livelihood by working in these fields or those who walk about in them whilst shooting snipe or duck. These paddy fields are covered with water to a depth of from two to six inches. My patient told me that he often killed his wounded birds by biting the backs of their heads. This was probably the channel of infection in his case, although Dr. J. A. Thomson, of Hankow, who has seen a good number of cases, prefers the theory that the infection enters the body through the skin or *vid* the rectum.

It seems to me, however, that it is very reasonable to suppose that the infection might more easily be conveyed through the mouth, as one can so easily be splashed by the water in which one is floundering about, or after picking up a bird out of the water, by brushing the hand across the mouth. Whilst we were at Hankow eight American sailors belonging to the U.S.S. *Quiros* became infected whilst bathing in the river at Yochow, their symptoms appearing two or three days later; whereas in the case I have described the patient had been shooting for the last time exactly four weeks previously. These Americans were treated by their own surgeon, Dr. Lanning, in the International Hospital at Hankow, each one receiving a different course of treatment as far as possible, the lines adopted being: Santonin, felix mas, intramuscular injection of quinine hydrochloride, arsenic by the mouth, and salvarsan intravenously, intramuscularly, and by the rectum. None of these treatments had any marked specific action on the disease, which seems to run its course unaffected by drugs.

Very little information concerning this disease can be obtained from any text-book, and for what little knowledge I possess I am indebted to Dr. Thomson and Dr. Aird, of Hankow, who are investigating it as far as possible with the little material at their disposal. Chinamen who suffer from this disease are those who are compelled to work in the fields and are continually exposed to reinfection, and among them the mortality is great, as this leads to cirrhosis of the liver, kidneys, &c., and their attendant sequelæ. The parasites themselves, which are from half an inch to one inch in length, are found post mortem in the veins of the portal system; their extra-corporeal life is unknown. It seems probable that the ova are taken in by the mouth, their walls being dissolved by the gastric juices, and the embryos which are thus set free pass through the walls of the stomach or intestine and develop in the portal veins. The ova are not found in the stools for some days after the onset of the fever. The stools at the beginning are very loose and light in colour, but after the first week or so they become formed, and the ova are found in the mucus adhering to the fæcal matter. They are easily seen with a 2/3 objective, are oval in shape, and with a 1/6 objective an embryo can be seen inside; the walls are thinner than those of ascaris. The parasites remain in the blood for some time after the symptoms have disappeared, gradually dying out as the patient recovers his strength, which returns rapidly in a temperate climate.

This disease is sometimes called urticarial fever,

[1] Published by permission of the Medical Director-General of the Navy.

but the rash is not present in all cases. The most constant signs present are the prolonged fever and the large increase of eosinophiles, accompanied by the wasting of the patient. The mortality among the whites is practically *nil*, as they can so easily avoid reinfection.

ACUTE LEUKÆMIA SIMULATING CARIES OF THE SPINE.

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AND
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THE following case is perhaps worthy of publication in THE LANCET on account of its unusual clinical features.

A boy, aged 5 years, was admitted into St. George's Hospital on August 26th, 1913, with the following history. Early in the year (April) he had an attack of whooping-cough followed by measles; from these he recovered somewhat slowly, but when sent away to the country in July he appeared to be perfectly well. While away he fell from a cart, injured his back, and as a result of pain was unable to walk for a few days. On his return to London, however, on August 17th the pain had gone and he was able to walk normally. On the 20th he complained of further severe pain in the back and also in the right side of the abdomen—this latter pain disappeared in two days; the pain in the back increased in severity and again prevented him from walking. There had not been any previous illness, and the family history was good.

On admission the child appeared to be well nourished, healthy, and of good colour. He was unable to stand or even sit up on account of pain in the back. On examination of the spine there was extreme tenderness over the lower dorsal and upper lumbar vertebræ, with marked rigidity of the para-vertebral muscles. No bony deformity was present; any attempt at movement caused great pain. Tenderness was also elicited in the left sacro-iliac joint on lateral compression. There was no evidence of lumbar or psoas abscess, but abdominal examination was difficult owing to distension, which was very considerable on admission. Enlarged glands could be felt in both groins, on the right side of the neck, and in the left axilla—these were mostly small, firm, and painless. There was no evidence of any spinal cord lesion; the knee-jerks were normal.

The patient was kept in bed under observation and the bowels were well opened by purgatives to overcome the distension. In spite of the rest the pain continued and the temperature became irregular; accordingly, as the case appeared to be clinically one of acute tuberculosis of the spine, a complete plaster spinal jacket was applied under general anæsthesia with the child in the hyperextended position. Prior to the application of the plaster X ray photographs were taken of the spine and pelvis on three occasions; these revealed no abnormality. After a few days the pain in the back disappeared; the temperature, however, remained irregular. The plaster was removed in five weeks, and it was then found that the pain and the rigidity of the spine had disappeared. The pain in the left sacro-iliac joint still persisted and now was also present on the right side; a double extension was, therefore, applied to the legs, with the back extended on a wedge pillow, on the assumption that the sacro-iliac joints were affected.

About four weeks after admission it was noticed that the child was becoming pale in spite of the fact that he spent a large part of the day in the open air. The pallor slowly but steadily increased, and as the face became puffy and almost œdematous lardaceous disease was suspected; the bowels, however, remained constipated and the urine was free of albumin throughout. On Oct. 1st an enlargement of the liver was detected, and this steadily progressed; the organ was smooth and painless, resembling the liver in lardaceous disease, but, as stated above, confirmatory signs were absent. The spleen was not enlarged. On Oct. 24th he had a severe attack of epistaxis followed by frequent vomiting of recent and altered blood for 36 hours. On the 28th a Wassermann reaction was performed by Mr. H. W. Bayly and found to be negative. Mr. Bayly also on the same day examined the blood and reported the following condition: "Red cells, 830,000; white cells, 14,800; polymorphonuclears, 17 per cent.; lymphocytes, 81 per cent.; mononuclear cells, 0; eosinophil cells, 2 per cent.; mast cells, 0; hæmoglobin, 20 per cent.; colour index, 1·18. Considerable variation in the size of the reds; one normoblast seen." The proportion of small and large lymphocytes was not given, but from recollection the large predominated. Mr. R. R. James examined the eyes on Oct. 29th and reported: "The fundi are pale. There is a hæmorrhage below the right disc. The veins are not characteristic of leukæmic retinitis." The child gradually sank and died on Oct. 31st.

The necropsy was performed by Dr. R. S. Trevor, who has also provided us with a description of the microscopical appearances. "The ribs were thin and the cancellous spaces large and full of deep red marrow; they were so brittle that they broke almost at once on handling. The marrow of the tibia was dull red in colour and firm in consistence. The spine was very flexible and was entirely free from any evidence of tuberculosis. The cancellous tissue of the bodies of the vertebræ was so soft that it could be cut quite easily, and the compact bone was thinned out. The bone marrow was deep red in colour. The sacro-iliac joints were free from tuberculosis. The skull was normal. There were three small hæmorrhages in the right retina. The liver, weight 2 lb. 4 oz., presented rounded edges and was pale, firm, and enlarged. On section it was pale brown in colour, rather translucent in appearance, but did not give the reaction for lardaceous disease. The portal lymphatic glands were not enlarged. Spleen, 2 oz., was red and engorged. Kidneys, 4 oz. each, were pale and bloodless; they looked lardaceous, but did not give any reaction. Tonsils slightly enlarged. The thymus was well developed, but was not of abnormal size. The surface of the heart was covered with hæmorrhages. The valves were healthy. The musculi papillares in the left ventricle showed fatty degeneration.

Microscopical appearances: The bone marrow from the tibia shows a striking leucoblastic reaction. The change is widespread, though rather more pronounced in patches. The cells present in these areas are lymphocyte-like cells, mostly of large size. The cell protoplasm is scanty, and at times forms may be seen as a narrow ring round the large nucleus, which is either irregularly rounded or oval. The cell protoplasm is non-granular, for the most part basophilic, but not a few cells show a tendency towards a neutrophilic reaction. The nuclei are for the most part degenerate, many showing a loose network with large clear spaces in between. There are a few myelocytes present, mostly of the coarsely granular eosinophilic type; neutrophilic myelocytes and polymorphonuclear cells are exceedingly scanty. In addition there are distinct zones of erythroblastic reaction, which are megaloblastic in type. The nature of the lymphocyte-like cells is not clear, but I would regard them as myeloblasts or premyelocytes. The liver is diffusely infiltrated with cells similar to those predominating in the marrow. These cells fill the capillaries and form large clusters in the portal spaces. The kidneys are similarly affected, but the infiltration is more patchy and best marked in the zone between the cortex and medulla. The tonsils show chronic inflammation, and the crypts are full of inspissated secretion or débris."

The main interest of the case is the simulation of spinal caries by leukæmia, for this does not appear to have been observed in any published cases. At any rate, it is not mentioned in the 121 summarised cases of acute leukæmia tabulated by Boudet.[8] It is known that occasionally the sternum and long bones are tender on pressure and exceptionally the site of dull pain, presumably from hyperplasia of the bone marrow and absorption of the bone. According to Muir,[7] these symptoms are relatively less rare in myeloid than in lymphocytic leukæmia. In Parkes Weber's[9] and Hans Leyden's[6] cases of acute leukæmia there was pain in the

back. It is, however, noteworthy that in a case in which the bone marrow changes were confined to the vertebræ there is no mention of pain in the back (Emerson[4]). Chloroma is an atypical form of leukæmia characterised by the presence of green tumours usually growing from bones, and it is not surprising to find that pressure symptoms may occur. In the analysis of his collected cases of chloroma Dock[3] quotes two examples of pressure on the spinal cord and several of sciatica. In one of Treadgold's[8] cases (a boy aged 3 years) there was loss of power in the legs. There was a tumour on the right frontal bone, but no mention is made of the spine at the necropsy.

A puzzling feature was the very considerable enlargement of the liver and the absence of any splenic enlargement—a rather exceptional association in leukæmia and especially in this instance, as the spleen enlarges more readily in young than in adult subjects. It is not noted in any of Babonneix and Tixier's[1] 29 collected cases of acute leukæmia in infants; but among Forbes and Langmead's[6] 12 cases of acute leukæmia in early life there was one case (a boy aged 9 years) with enlargement of the liver without splenomegaly. In Wolff's[10] case of "aplastic leukæmia" with aplasia of the bone marrow, progressive anæmia reaching 500,000, leucocytes 3000 to 5000 with a predominance of large lymphocytes, the spleen was small and the liver reached six finger-breadths below the costal margin. The very considerable enlargement of the liver in our case shows that the leukæmia was not of the most acute form.

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Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTES OF THREE CASES OF QUININE POISONING, TWO OF WHICH WERE FATAL.

BY JOHN D. GIMLETTE, M.R.C.S. ENG., L.R.C.P. LOND.,
RESIDENCY SURGEON, KELANTAN.

LARGE doses of quinine, such as a scruple or half a drachm of the sulphate in a single dose, may occasion vomiting and pain in the stomach, giddiness, flushing of the face, palpitation of the heart, a sense of distension in the head, intense headache, ringing in the ears, numbness in the feet, deafness, blindness, and even delirium and coma. In persons who are susceptible a dose of 6 grains may, as reported by Connor,[1] give rise to these alarming symptoms, with a rash in addition, but such accidents are uncommon in the absence of any definite idiosyncrasy, and death as a direct result of a poisonous dose is rare and worthy of record.

On Sept. 9th, 1913, two Chinese coolies, employed on a small rubber estate in one of the Protected Malay States, died, and another was definitely poisoned at the same time but subsequently recovered. Malaria is prevalent in the district, and the value of quinine as a preventive is well known to Chinese immigrants; it is commonly administered to them after a preliminary dose of Epsom salts. At daybreak on the day in question the three Chinese reported themselves sick, with constipation and fever; they were attended to by their head man, a Chinese mandor, who gave them each 2 ounces of a concentrated solution of quinine in mistake for a solution of Epsom salts. The patients were not seen by any qualified practitioner, but as soon as it was recognised that they had been accidentally poisoned an Indian hospital assistant was sent for from a neighbouring estate. On his arrival, about 10.30 A.M., one Chinese was dead and another unconscious; he washed out the stomach of the latter and gave an injection of strychnine, but the man shortly died.

The third was groaning, sweating, vomiting, and only semi-conscious; he was given ipecacuanha as an emetic, as well as castor oil, and was removed to the nearest estate hospital. On his recovery the next day he said he felt giddy after taking the medicine, had ringing in the ears, fulness in the head, deafness, double vision, and then became delirious. When in hospital he complained of great itching in the lower limbs. The urine was not examined. The men who died had complained in Chinese of burning at the heart; they became delirious and ultimately comatose. It is roughly estimated that each coolie took 90 grains of sulphate of quinine in a single dose on an empty stomach.

Kota Bharu, Kelantan.

1 Medical Record, April 4th, 1903.

NOTE OF A CASE OF RAPIDLY GROWING ALVEOLAR SARCOMA OF THE CRANIUM.

BY D. W. KEILLER MOODY, M.D., C.M. ABERD.

A BOY aged 10 years was hit behind the ear by a small stone. As soon as it occurred he complained of much pain, and a lump about the size of a hazel nut was seen by the parents behind the ear. They did not attach much importance to it, and he went to school for three weeks afterwards, making no complaint. The lump, the parents said, remained

From a photograph of the growth showing the fungating mass protruding from the incision.

the same size. He was then sent home one day from school as he had been "sick." The lump then began to swell. Medical advice was sought, and it was taken to be a hæmatoma that had "broken down." It was soft and fluctuating.

A small incision was made, and it bled freely and a small quantity of pus exuded. It was then recognised that a mistaken diagnosis had been made, and that it was probably malignant. Pathological examination showed it to be an alveolar sarcoma, probably periosteal in origin. It grew to be an enormous size, embracing the whole of the left parietal bone, most of the temporal, and a small part of the frontal and occipal (see figure.) Cerebral symptoms set in, and the patient died exactly four weeks and two days from the time he became "sick," or seven weeks and two days from the time of the trauma.

The case is interesting, not only on account of the trauma, but because of the rapid growth and early fatal results.

Medical Societies.

ROYAL SOCIETY OF MEDICINE.

CLINICAL SECTION.

Exhibition of Clinical Cases.

A MEETING of this section was held on Jan. 8th, Mr. CHARTERS J. SYMONDS, the President, being in the chair.

Dr. H. D. ROLLESTON and Mr. E. G. BOYD showed a case of Addison's Disease in a Boy, with Calcification of the Adrenals. The patient, aged 12¾, was bright, intelligent, and fair-skinned until the close of 1913, when his skin was noticed to be brown; an attempt to wash it off failed, and it was thought to be due to his habit of drinking vinegar. Synchronously with his change in colour he lost all energy, was inclined to sleep all day, very easily got tired, had a cough at night, and nocturnal enuresis. There had not been any gastro-intestinal disturbance or fainting attacks. An uncle and a brother were said to have had tuberculosis. On admission to the hospital the boy had a somewhat lifeless, sleepy, sunken-eyed appearance and a general bronzing of the skin, especially around the nipples and pudenda. There was a pigmented scar in the left groin, and the back and abdomen showed a few scattered spots of pigmentation. There was no buccal pigmentation. There were no signs of pulmonary or spinal tuberculosis, and von Pirquet's reaction was negative. The systolic blood-pressure in the arms varied between 74 and 84 mm. Hg. There was no valvular disease of the heart. There was no dulness behind the manubrium sterni. Dr. Stanley Melville reported that a skiagram showed very definite calcareous particles in the region of the last rib and suprarenal body on the right side, less definite on the left side. The heart was small and vertical. There were discrete and dense opacities at the hila of the lungs, suggesting calcified nodules. The movements of the diaphragm were feeble, but the expansion and translucency of the apices normal. A blood count showed some polycythæmia and an increase in white cells to 23,000 per c.mm. Dr. Rolleston said that a high lymphocyte count had been thought to indicate concomitant lymphatism, and therefore to be an ominous sign. An increased number of red blood corpuscles was occasionally seen in Addison's disease, and various explanations had been offered. It had been thought to be due to concentration of the blood from vomiting or diarrhœa, neither of which occurred in this case. A specific action of tuberculous toxin had been invoked, and G. R. Ward had described the process as compensatory, and argued that adrenal insufficiency gave rise to circulatory stasis, which, in its turn, caused concentration of the blood and actual increased blood formation. The treatment which was being adopted was rest in bed and adrenalin chloride solution (1 in 1000), 10 minims in water three or four times daily by the mouth.

Mr. SYDNEY BOYD showed a case of Splenectomy for Chronic Acquired Acholuric Jaundice with Splenomegaly. It was that of a man aged 22. The illness began in August, 1909, with lassitude, loss of appetite, indigestion, with occasional vomiting, especially after fatty foods, frontal headache, giddiness (especially on stooping), and slight icteric discolouration of the conjunctivæ and skin. Jaundice had persisted more or less since the onset and always became worse after exertion. The urine was dark in colour and the stools were said to be light-coloured. Eighteen months ago the gall-bladder was explored and drained in a London hospital with a negative result, the jaundice persisting. He first came under Mr. Boyd's observation in August, 1913, and was found to be fairly well developed and well nourished. There was slight icteric tinging of the skin and conjunctivæ. The spleen was enlarged, extending two fingers' breadth below the costal margin. The liver edge could be felt just below the right costal arch and was rather firmer than normal. The other viscera were healthy. The motions were of normal colour; the urine dark reddish-brown, specific gravity 1015, acid, contained an occasional trace of albumin, no sugar, blood, or bile. The red blood cells numbered 4,200,000 per cubic millimetre, white cells 5900, hæmoglobin 80 per cent., colour index 1·05. A week later the blood was examined by Dr. S. H. Browning, who reported as follows: Total red cells, not done; hæmoglobin, 96 per cent.; white cells, differential count (500 counted)—polymorphonuclears, 70 per cent.; lymphocytes, 28 per cent.; large mononuclears, 1·2 per cent.; eosinophiles, 0·8 per cent.; mast cells, 0. From the appearance of the films there was some polymorpho-leucocytosis. The red cells varied considerably in size; there was some polychromatic staining. No normoblasts were seen. Some poikilocytosis. Films stained by Pappenheim's method showed granules in some red cells and some slight reticulation. The blood serum was quite greenish-yellow and gave all the reactions for pile pigment. The blood, unfortunately, underwent auto-hæmolysis before it was spectroscoped. The relation between serum and clot was very abnormal—about 7½ c.c. of serum in 10 c.c. of blood. Wassermann's reaction was positive. There was a very slight increase of fragility of the red cells. The patient was kept under observation in bed for four weeks. The jaundice varied from day to day, and with each exacerbation he had drowsiness, headache, and general malaise. Operation: A preliminary hypodermic injection of morphine, scopolamine, and atropine was given. Inhalation anæsthesia by open ether was employed. Splenectomy was performed through a vertical incision near the outer edge of the left rectus. The spleen was delivered out of the wound, there being no adhesions to the diaphragm. The gastro-splenic omentum was divided close to the spleen between several pairs of forceps and ligatured. The splenic vessels between the two layers of the lieno-renal ligament were then similarly treated, being divided also close to the spleen. The wound was closed in layers without drainage. There was hardly any shock; very little vomiting and no hæmatemesis followed. Convalescence was rapid. On the third day after the operation the jaundice was very much less; at the end of a week the sclerotics had lost their icteric tinge and the urine was normal in colour. The patient expressed himself as feeling very much better, having lost his headache and drowsiness and digesting his food well. A second report on the blood was made by Dr. Browning one month after splenectomy. The Wassermann reaction was now negative, and Dr. Browning had little doubt that the former positive reaction was due to the excess of bile in the blood serum. The fragility of the red corpuscles was, as before, practically normal. The blood had not hæmolysed of its own accord. Hæmoglobin, 100 per cent.; differential count normal; character of blood cells normal; the blood seemed normal. Dr. A. G. Gibson reported on half the spleen sent preserved. The external shape of the organ was normal and the size about twice that of the adult spleen. Its surface was slightly roughened, but the capsule was not definitely thickened. On section it was dark brown in colour, and the Malpighian bodies were marked though not increased in size or number. The trabeculæ could also be seen. Small darker points could be seen here and there and suggested thrombosis in the smaller vessels; some of the larger vessels were definitely thrombosed. Microscopically, the organ was highly cellular. Malpighian bodies were present and the larger trabeculæ were thickened. Red and white clot could be seen in some of the larger veins. In the more cellular parts were numerous lymphoid channels lined by a simple but not always regular epithelium.

General fibrosis was not marked. Everywhere in the sections could be seen pigment granules, mostly extracellular. There were no hæmorrhages to be seen, either in the neighbourhood of the trabeculæ or in the pulp. In the walls of a few thickened arterioles, out of a large number examined, were several thin, long, unbranched threads appearing black when stained by Wheal and Chown's method; none of these, however, though suggestive of a parasitic invasion, could be found to possess any features which could be taken as proof that they were mycelial threads. Some of these threads had been found in the pulp. Mr. Boyd remarked that the case was one of chronic acholuric jaundice, clearly of a hæmolytic nature, and in the absence of any family or congenital history it must be grouped under the "acquired" type. Of special interest were: (1) the (practically) normal fragility of the red cells in saline solution; (2) the remarkable changes in the blood which followed the operation, including the conversion of a positive Wassermann reaction into a negative one; (3) the futility of drainage of the gall-bladder in these cases; and (4) the immediate and beneficial effect of splenectomy.

Dr. F. SYLVAN showed a case of Pulmonary Tuberculosis after Gymnastic Treatment. The case had been exhibited at a previous meeting of the section, and was brought again to show that improvement had been maintained.

Mr. HENRY CURTIS showed a case of Successful Excision of the Shoulder performed by Sir John Erichsen 50 years ago. The man was 64½ years of age. In 1861, when aged 12, he suffered from an abscess behind the right shoulder and was seen by the late Mr. Sydney Jones at St. Thomas's Hospital, who evacuated the pus and inserted a seton in the wound. The shoulder was painted with iodine and covered with guttapercha, according to the man's account. After two days the shoulder became very bad, and the patient returned to St. Thomas's Hospital, where he was admitted under Mr. Simon After one week the hospital was closed, and he was discharged unoperated upon. The shoulder was then poulticed until it finally closed up. In 1863 the "arm fell to the side," owing to the extensive disease of the bones about the right shoulder-joint. The patient went to University College Hospital, where Sir John Erichsen excised the shoulder-joint, but told the patient "he would never be able to get his hand to his head." In January and July, 1885, some sinuses above the right axilla were treated by Mr. A. E. Barker and Sir Victor Horsley. When shown there were seen to be numerous depressed scars of healed sinuses in front of and behind the right shoulder-joint. The right upper arm was notably shortened compared with the left. The right hand could be readily brought round to touch the occiput. Skiagrams were exhibited.

Dr. BERNARD E. MYERS showed a case of Osteitis Deformans. The patient was aged 57. About a year ago he came for advice with regard to severe pains in the back and legs. It appeared that he had suffered from pains in various bones and joints for five years. The affected bones included the vertebræ, both femora, especially the left, both tibiæ and fibulæ, the right radius and ulna, and the skull. The walk of the patient was suggestive of osteitis deformans. He had lost about 4 or 5 inches in height since his pains began. The head was bent forwards, evidently on account of the usual dorso-cervical kyphosis of this complaint. There was very distinct thickening of the left femur, which also showed an outward and a forward curve. There was some thickening of the left tibia and, perhaps, of the right radius and ulna. The clavicles seemed to be a little enlarged also. The peculiar feature of the case was the apparent want of increase in thickness of the cranial bones. He could wear the same hard hats now as formerly. Arterio-sclerosis was rather well marked. Pains in the præcordial region troubled him occasionally. The appetite was good; the bowels opened daily. The speech was "stuttery" at times, the memory was fair, and he slept well. There was no similar case in his family. The diagnosis of osteitis deformans was supported by the X ray photographs, the only difficulty being his skull and a rather prominent lower jaw. The latter suggested the possibility of the coexistence of Paget's disease with acromegaly, but an X ray picture showed a normal sella turcica and nothing abnormal in the inferior maxilla. He had taken quinine, iodide of potassium, and nux vomica with no noticeable benefit. For the pain various liniments had been tried and perhaps had been of some use, but his greatest relief from pain had been obtained from salicylate of sodium, which he was still taking in conjunction with tonics.

Mr. THOMAS H. KELLOCK showed a case of Lipoma Nasi. The patient was a man aged about 77. About 12 years ago he first noticed that the end of his nose was getting larger, and it had steadily increased in size since, but he thought the growth had been more rapid during the last six months or so. There was a tumour almost the size of a fist attached by a pedicle to the lower part of the nose. It showed the usual depressions at the points where the sebaceous glands opened; it would be seen that the alæ nasi were, independently, in a similar condition.

Mr. GORDON TAYLOR showed a case of Osteitis Deformans; Operation for Fractured Femur. The patient, a man aged 56, was admitted into the Middlesex Hospital in April, 1913, for a fracture of the middle of the shaft of the right femur. Attempts to secure proper apposition of the fragments by means of splints and extension were not successful, and in May an operation was performed by Mr. Kellock, and the fragments were fixed by means of a Lane's plate. Recovery was uneventful, and the patient was transferred from the wards to the out-patient department in July. Before leaving the wards he was discovered to be suffering from osteitis deformans. Both femora and tibiæ were bowed; the upper part of the spine was fixed in its bowed position; the clavicles were enlarged and the bones of the upper extremity were also slightly curved. There appeared to have been no change in the dimensions of the cranium. The condition did not appear to have influenced the union of the fracture in any way.

Dr. W. ESSEX WYNTER showed a case of Congenital Heart Disease, probably pulmonary stenosis with incomplete ventricular septum. The man, aged 26, suffered from pains in both elbows and knees at the end of September, 1913, this being the only occasion on which he could recall anything of the nature of a rheumatic attack. On account of the loud cardiac murmur he was kept in bed for several weeks and finally sent to hospital. The apex beat was just within the nipple line, and pulsation, with dulness on percussion, extended one inch to the right of the sternum. A loud systolic murmur could be heard over the præcordia, the point of maximum intensity being in the fourth space near the sternum. It was so loud that it could be heard for some distance radiating from this point, but was best conducted towards the left clavicle in the course of the pulmonary artery. It was inaudible in the carotids and posteriorly. The second sounds were distinct but not increased, and there was no diastolic murmur. The pulse was normal in character, neither small nor collapsing, and regular. Blood pressure 170 mm. of mercury. There was no enlargement of the liver, no œdema, nor any cyanosis except during rare attacks of cardiac disturbance, and there was no clubbing of the digits. The patient had always suffered from shortness of breath on exertion, was never able to play games, and could not perform any arduous work. Blood count: red cells, 6,512,000; white cells, 6400; hæmoglobin, 100 per cent.; index, 0·8. The X ray screen disclosed enlargement of the right ventricle and limited bulging of the conus arteriosus to the left.

Dr. WYNTER also showed a case of Patent Ductus Arteriosus. The patient, a woman aged 35, was admitted in December, 1913, for hysterectomy on account of uterine fibroids. This had been considered twice during the past two years, but operation was thought inadmissible on account of the heart condition. The same doubt arose again, but the view that the murmur was due to a patent ductus having been arrived at, no objection remained either to the operation or anæsthetic. Total hysterectomy was performed by Sir John Bland-Sutton. No trouble was experienced with the anæsthetic, the patient bearing the operation well and making a very rapid recovery. The patient had scarlet fever at the age of 7. "Cardiac weakness" had been noticed for five years since the third and youngest child was born. With the dysmenorrhœa which occurred during that time there were often associated pseudo-anginal attacks. A loud systolic murmur was heard in the third left intercostal space, accompanied by a thrill. There were no appreciable cardiac changes or enlargement. The temperature was normal and there was no dyspnœa even on exertion. She played hockey and cricket in girlhood, and activity had not been restricted by the heart condition. No secondary

changes, such as enlarged liver or œdema, had occurred. By the X ray screen the heart appeared normal in size and position, but there was bulging of the pulmonary artery above the heart shadow.

Dr. WYNTER also showed a case of Chronic Lymphatic Obstruction. The man, aged 44, had suffered for 11 years from the condition, consisting of tense œdema of the hands and wrist with progressive enlargement of the head and lower jaw and attacks of dyspnœa. In 1906 amputation of the left forearm was performed in Buenos Aires, as the tense skin ruptured and sloughed. The remaining hand was almost globular owing to the swelling. There was some power of movement in the wrist, but little or none in the hand and fingers when the swelling was great. Sensation was lost as far as the elbow. There were some small superficial sloughs on the back of the hand. Appreciation of touch, pain, and temperature was lost here and up to a fairly definite line above the elbow. The head appeared to be increasing in size, as larger-sized hats were required, and the extension of the lower jaw with loss of teeth interfered with mastication. Headaches occurred from time to time, accompanied by nausea and also attacks of hæmaturia, when clots appeared in the urine for three days at a time. Within a few months of the commencement of the illness notable enlargement of the glands in the axilla and above the left clavicle occurred and had recurred on four occasions, the swelling attaining the size of a golf ball and lasting a week. Urine, specific gravity 1026, deep yellow, no albumin or sugar, no deposit. The patient had enteric fever and empyema at the age of 8. The thoracic and abdominal organs appeared to be normal, and there was no abnormality about the trunk or lower extremities. The mother and five brothers and sisters were living and well. An X ray screen examination showed some light shadows in the region of the bronchial glands on each side of the vertebral column, but no massive enlargement or growth. The sella turcica did not appear enlarged, but there was some increase in size and density of the hand bones.

Dr. C. R. BOX showed a case of Hypertrophy of the Bladder accompanied by Polyuria and Polydipsia in a boy aged 7.

Mr. BERNARD ROTH showed a boy, aged 9, with a Fusiform Swelling of the Shaft of the Left Humerus.

MEDICAL SOCIETY OF LONDON.

The Pathology of Syphilis.

A MEETING of this society was held at 11, Chandos-street, W., on Jan. 12th, Sir DAVID FERRIER, the President, being in the chair,

A discussion on the Pathology of Syphilis was opened by Dr. W. D'ESTE EMERY, who pointed out the enormous advances that had been made recently in the study of syphilis, which might now be considered as one of the best known diseases. He regarded the remarkable clinical history of the disease as being due to the reactions of the tissues of varying degrees of sensitiveness to the spirochætæ or their toxins. To begin with, the patient was relatively immune, and it was only when the tissues in the neighbourhood had become sensitive that they reacted and a chancre was formed. The highest degree of sensitiveness appeared at the commencement of the secondary period, when the lesions were mainly of an acute inflammatory nature, and fell off gradually during the whole course of the disease, the gumma marking the reaction of but slightly sensitive tissues. He discussed the luetin and Herxheimer reactions in the light of this theory. With regard to the Wassermann reaction, he held that it was not a reaction of immunity but of cell degeneration, and its strength in any given patient afforded a rough guide as to the extent of the disease. In all cases it indicated the necessity for continuing treatment. He then dealt with the action of salvarsan, mercury, and the iodides, attributing to the latter an action like that of an antitoxin, but no spirillicide powers. With reference to parasyphilis, he agreed with McIntosh and Fildes in regarding it as essentially similar to gumma formation, except that the spirochætæ were situated in the nerve-substance proper, and held that the spirochætæ probably reached the central nervous system by way of the nerves. Unlike them he thought that the lesions were due to the access of the organisms to tissues which were already sensitive and not to the subsequent sensitisation of tissue containing them. He thought, however, that it was quite possible that there might be strains of spirochætæ having a special affinity for the central nervous system. In dealing with the question of the curability of syphilis, he protested against the pessimistic views on tertiary syphilis which were held by some at the present time. He admitted that long-standing cases did not react readily to treatment, and this he attributed to the spirochætæ having become resistant to mercury, arsenic, and probably also to syphilitic antibodies. He believed also that the idea as to the incurability of parasyphilis at the present time must be modified, and quoted some good results which he had obtained from the method of spinal injection of the blood after an injection of neosalvarsan introduced by Swift and Ellis. Under certain closely defined circumstances he thought that the continued absence of a Wassermann reaction, especially after a provocative injection of neosalvarsan, might be taken as indicating an almost certain cure.

An interesting debate followed, which we shall report next week.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY.

Oral Sepsis.

A MEETING of this society was held in the Board Room of the Great Northern Central Hospital on Jan. 8th, Dr. T. WILSON PARRY, the President, being in the chair. There was also present the Northern Section of the Metropolitan Branch of the British Dental Association.

Dr. WILLIAM HUNTER read a paper on Oral Sepsis in Relationship to Anæmia. In the course of his remarks Dr. Hunter mentioned that it was during his research work at Cambridge University in connexion with anæmia that his attention became arrested as to oral sepsis being a cause of many of the anæmias. Following this up he became assured that such a thing as "medical sepsis" existed, and that, although it was staring everybody in the face, it had been overlooked. He mentioned the progress that had been made in the study of anæmia during the last 25 years, when he read his first paper on the subject to a North London Medical Society. It was interesting to trace the number of cases due to teeth trouble before the year 1900, and since that time. In the five years previous to 1900 there were only five cases of this kind reported in THE LANCET, and one of these was due to a patient having swallowed his tooth-plate, while in one of the years following 1900, 40 cases were reported in the same paper during a single year. This showed the growing recognition of oral sepsis as a serious cause of disease. He objected strongly to the term "pernicious" anæmia, and considered it should never be used. He thought sepsis was the cause of over 90 per cent. of the anæmias.

Mr. C. F. PEYTON BALY, dentist to the Great Northern Central Hospital, stated that it was becoming increasingly common for all departments of the hospital to send cases to him for the removal of oral sepsis.

Dr. DAN MCKENZIE compared Dr. Hunter's experience of discovering oral sepsis in his research of anæmia to a certain Biblical character who set out to find his father's asses and found a kingdom instead. His experience had been that success in throat operations depended largely on first getting rid of oral sepsis. He had kept temperature charts of some 300 cases of tonsil and adenoid operations in an orphan asylum and found that the majority had a rise of temperature on the second or third day. After giving attention to the removal of oral sepsis no such rises of temperature had occurred. He questioned whether Dr. Hunter had actually established a definite association between oral sepsis and essential pernicious anæmia.

Dr. H. L. TIDY disagreed with the previous speaker's views on sepsis and tonsil operations. The mere effusion of blood caused a rise of temperature, and a simple fracture always caused a rise of temperature. He thought the indiscriminate removal of teeth for oral sepsis was to be greatly deplored. He always felt suspicious of anything which was claimed to be the universal cause of disease. There were many of them

—kinks in the ileum, uric acid, &c. Many cases of pernicious anæmia had been "cured" by divers remedies. The ordinary course of pernicious anæmias was three "cures" and three relapses. The study of the blood and its diseases had greatly altered during the past 20 years. It was only seven years ago that the myeloblast was discovered, and it revolutionised our ideas on blood diseases. He thought that Dr. Hunter's statement that the size of a septic lesion was of no importance was grossly inaccurate, and he begged the audience to temper their enthusiasm with judgment.

Mr. ERNEST H. SHAW said that the mouth of the average hospital out-patient was a fearful place. Swabs and cultures showed fearsome growths. Streptococci were *the* important organisms. Each culture really represented a group of streptococci. In pernicious anæmia he had never been able to find streptococci in the blood either ante or post mortem. The pus from pyorrhœa alveolaris on culture showed almost pure growths of streptococci, and it always seemed to him a rather doubtful procedure to pull out the teeth. He was no advocate for the indiscriminate use of vaccines unless the teeth had first been attended to and ordinary dental hygiene had failed to check the disease. He disagreed with Dr. Tidy's views on oral sepsis and tonsil operation and agreed with Dr. McKenzie. He could not agree with Dr. Hunter that pernicious anæmia was due to infection, as no organisms had ever been found in the blood. If Dr. Hunter's views were correct, how was it that one found so many filthy mouths in people who were in sound health and full-blooded?

The PRESIDENT thanked Dr. Hunter for his interesting address and for giving the society an opportunity to hear the result of his 25 years' labours on conditions of the blood. He quoted the case of a boy aged 14 who was at present under his care. He first saw the case on May 28th last, and was puzzled as to a diagnosis till the blood was examined, which revealed a typical lymphatic leukæmia; on June 7th the count showed 8000 white cells, 2,880,000 red cells, colon index 1·6, a very low polymorphonuclear count (namely, 16 per cent.), and a very high lymphocyte count (namely, 82 per cent.). Anxious to have another opinion Dr. Hunter was called to see the case, but the temperature, which had been running an erratic "high" course for a month, had dropped two days before Dr. Hunter was called in. Dr. Hunter advised the removal of an upper lateral incisor tooth which in itself was quite healthy, but the gum was a little spongy over its root. There was no pain, and no pus was present. To make sure that sepsis was not giving rise to the trouble a second tooth was removed so that the antrum could be examined. No pus was obtained. The President said that although the boy looked very well and had put on weight considerably he was still not right, and that the last examination of the blood, which was made on Dec. 24th, gave white cells 7000, red cells 5,920,000, colon index 0·7, the polymorphonuclears as 42 per cent., and the lymphocytes as 54 per cent.; the former should be between 60 per cent. and 70 per cent. and the latter about 25 per cent. Time would tell as to whether this was not a true case of lymphatic leukæmia or whether sepsis played a part in this severe illness.

Mr. F. TALBOT said that in most dental practices 80 to 90 per cent. of the patients had oral sepsis. It would be exceedingly difficult to prove that such an everyday cause produced such a disease as pernicious anæmia. One might as well say that the teeth ought to be extracted in case they harboured the pneumococcus, which it was known they did.

Mr. A. H. PAYAN DAWNAY said that for want of any better reason many cases of inflammatory eye diseases were put down to oral sepsis, and he could certainly say that many such conditions were greatly benefited by suitable dental treatment.

Mr. GEORGE NORTHCROFT said that when marked pyorrhœa existed there was no known cure save radical removal of the teeth. Mild cases of gingivitis might be successfully treated. Many cases of alimentary toxæmia and arthritis had been absolutely cured by the removal of the primary focus of infection in the mouth. It had seemed to him a disgrace that no other effective treatment than extraction had ever been discovered for severe oral sepsis.

Dr. HUNTER, in replying, thanked the society for the great interest they had taken in the subject, and he especially wished that all the medical men present would recognise the fact that "medical sepsis" existed and was of supreme importance.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

The Retraction Ring of Bandl.

A MEETING of this society was held on Dec. 19th, 1913, in the Glasgow Maternity and Women's Hospital, Mr. A. ERNEST MAYLARD, the President, being in the chair.

Dr. R. JARDINE read a paper on the Retraction Ring of Bandl as an Obstruction in Labour. From a clinical point of view, he said, the exact situation of the ring was not of so much importance as the fact that it did form and might cause an exceedingly dangerous obstruction in labour. In some cases it was not the primary cause but the result of the obstruction; in others, it was itself the cause of the obstruction. While it was a rare complication of labour, it was commoner than was generally supposed. Cases fell into three groups according as the retraction ring formed (1) in front of the presenting head, (2) above the presenting head, or (3) in breech presentations; and each group presented the following characteristics: 1. Retraction ring in front of the head. *Diagnosis.*—There was no apparent obstruction to the advance of the head, yet labour was delayed, though the uterine contractions were strong and frequent. On palpation of the abdomen the head was found well above the brim of the pelvis and could not be pushed down If the abdominal wall were thin the ring could be felt, but with a thick wall it might not be felt. On vaginal examination the os was found to be dilated and the lower uterine segment opened up, but some 3 inches or so above the os a distinct ridge was felt running round a portion or the whole of the uterine cavity in front of the head. During a pain this ledge did not relax but became more prominent and prevented the advance of the head. The membranes might or might not be ruptured; if intact, they protruded into the vagina and might even appear at the vulva. In any case the ring undoubtedly formed before the membranes ruptured. The cause of the formation of the ring was possibly a spasmodic contraction of certain of the uterine fibres, comparable to the spasmodic contraction of the os which was occasionally met with and was generally attributed to an irritant which acted reflexly. *Prognosis.*—If the condition were recognised in time both mother and child should be saved, but unfortunately in many of the recorded cases a definite disgnosis was made only when exhaustion had set in and there was little chance of saving either. The proper *treatment*, if the child were alive, was Cæsarean section. Full doses of morphia or opium failed to cause relaxation. Manual dilatation was impracticable. Incision of the ring would be followed by extension of the incisions and would end in rupture of the uterus. Hydrostatic bags could not be introduced high enough to bear on the ring. If the child were dead it could be delivered by craniotomy. 2. Retraction ring above the presenting head. *Diagnosis.*—In a thin patient the ring would be palpable, and on vaginal examination it could be felt as a distinct ledge in front of the shoulders. The membranes ruptured before there was any dilatation of the os and the uterus soon became moulded round the child. During the slow dilatation of the os retraction took place and the ring formed round the neck of the child. *Prognosis.*—If the condition were recognised early the chances for both mother and child should be good, but if it were recognised only after attempts to deliver had failed the prognosis was unfavourable, especially for the child. In this group of cases, also, the treatment was Cæsarean section if the child were alive, or craniotomy if it were dead. 3. In a breech presentation, when the legs were extended, impaction generally occurred, because of the retraction ring gripping the child below the knees, so that its legs and feet were hitched above the ring. In these cases the membranes ruptured early, the whole of the liquor amnii drained away, and the uterus became moulded round the child. The risks to the mother were very small if proper precautions were taken, and to the child they were not much greater than in an ordinary breech presentation which required artificial delivery. With the patient deeply anæsthetised the flattened hand should be passed in carefully in front of the child until a foot was reached, which must then be swept

inwards over the front of the child and brought down carefully on account of the thinness of the lower uterine segment. When the leg was brought down traction should be made upon it, while an assistant kept up firm pressure upon the fundus of the uterus to prevent the arms going up and to keep the head well flexed. If the arms were caught they must be relieved by sweeping them over the front of the child, and the after-coming head must be dealt with in the usual way.

Reviews and Notices of Books.

The Examination of Waters and Water-supplies.

By JOHN C. THRESH, D.Sc. Lond., M.D. Vict., D.P.H. Camb. Second edition. With 53 illustrations. London: J. and A. Churchill. 1913. Pp. 644. Price 18*s.* net.

Dr. Thresh's experience of this great subject is well known to be a wide one. He wrote authoritatively on water and water-supplies a good many years ago, and his views as to the ways and means of securing pure supplies have borne fruit and have been a useful guide to many municipal authorities. From the point of view of securing a pure and abundant supply of water, he was amongst the first to appreciate the importance of studying the topography of water-supplies, and at the same time devoted much attention to the consideration of the technical problems which presented themselves in regard to differentiating those waters which were suitable and unsuitable for drinking purposes by both chemical and bacteriological methods. His book reflects this work, and the second edition of it will be welcomed. The previous edition was issued in 1904, and of course since that time considerable and important developments in connexion with questions of quality and quantity of water-supply have occurred. The work has been brought into touch with these newer developments.

Dr. Thresh discusses at greater length than before, and in the light of recent researches, the extraordinary importance of the processes of self-purification, chief amongst which is sedimentation. Storage in the case of London's water-supply has undoubtedly been largely responsible for maintaining a pure and abundant supply since the days not so many years ago when there were reasonable complaints of shortage and of doubtful quality. The huge schemes of reservoir construction at Staines and Tottenham prove to have provided not only an adequate supply of water by reserving the heavy flow of flood time, but also to have maintained that reserve in a condition fit for drinking owing to the purification that ensues when water is stored for a definite period. No one has more fruitfully developed the question of the great advantages of storage than Dr. A. C. Houston, the present water examiner to the Metropolitan Water Board, whose valuable contributions also on the bacteriology of water-supplies are cordially appreciated by Dr. Thresh. Dr. Thresh has, indeed, drawn most usefully upon the series of researches carried out by Dr. Houston, and no reference could be more important than that on the numerous investigations which Dr. Houston carried out on a large scale on the effect of storage. This will be understood when we quote one amongst the many conclusions arrived at, which is as follows: "The habitual use of stored water would lighten the grave responsibilities of the Water Board as regards the safety of the London water-supply, and would tend to create a sense of security amongst those who watch over the health of the metropolis."

Dr. Thresh's book will be valued, not only for his clear discussion of the practical considerations involved in supplying pure and abundant water to the community, but also on account of the chapters on laboratory technique, which provide a system of scientific control over that supply.

Diagnosis and Treatment of Diseases of Women.

By HARRY STURGEON CROSSEN, M.D., Associate Gynæcologist, Washington University Hospital; and Associate in Gynæcology, Washington University Medical School. Third edition. With 744 engravings. London: Henry Kimpton. 1913. Pp. 1025. Price 28*s.* net.

THE third edition of this book retains the characteristics of the first two editions. It has been revised and much new material added, as well as some new illustrations.

A description is given of Abderhalden's serum diagnosis of pregnancy, which the author considers may be used to advantage in a number of classes of cases, if its limitations are borne in mind. The method of employing the complement-fixation test in cases of gonorrhœa in which the gonococcus cannot be demonstrated is described, and in the opinion of the author the diagnosis may be cleared up with fair certainty in many doubtful cases of this kind by this test, provided the work is carried out by a well trained observer. An interesting section of the work is that dealing with the use of various forms of pessaries not usually described in text-books of gynæcology, which are of value in cases of inoperable prolapse of the uterus and vagina. The author describes the methods of using the Gehrung pessary, often a most useful support, Hewitt's pessary, that of Menge, and the cup and stem. The advantages of Gehrung's pessary are recognised by Dr. Crossen, and he gives a full account, with a number of useful diagrams, showing how to introduce this pessary and its action when properly placed in the vagina. It is certainly, as he says, the best of these pessaries and usually acts well in cases considered for one reason or another inoperable. In view of the fact that the preface to this edition is dated July, 1913, it is interesting to notice the statement in connexion with the treatment of cancer of the uterus that "the effect of radium treatment is practically *nil*," an interesting commentary upon the rate at which methods of new treatment may come into vogue. In not a few hospitals at this date (the beginning of 1914) the use of radium is to a large extent supplementing the knife in the treatment of cancer of the uterus.

The book is a good one, and this new edition should meet with a ready appreciation.

Die Cystenniere, Studien über ihre Pathologische Anatomie.

Von O. BERNER, Prosektor der Histologie an der Kgl. Frederiks-Universität zu Kristiania. Mit 159 zum Teil farbigen Abbildungen und 26 Tafeln. Jena: Gustav Fischer. 1913. Pp. xliii. + 284. Price 25 marks.

THIS work on cystic kidney is one of those elaborate monographs on a specific subject which is not only rich in a wealth of painstaking observations, but is illustrated very fully. The president of the "Fridtjof Nansens Fonds" is duly thanked by the author for his liberal contributions towards the expenses of the preparations and the micro-photographs.

Cystic kidney is not a very common affection and is one not often diagnosed during life. It is a condition, however, which has great interest for the

pathologist, the views as to its nature and cause having undergone so many changes in the course of time. It occurs more especially at two periods of life: in the newly born or in persons about 40 years of age. So far there is no generally accepted theory as to its pathogenesis. Three theories have been formulated: the earliest, the retention theory, by Virchow, the malformation theory, and the tumour theory. The author has collected his material from a variety of sources, and gives a detailed account in all of 28 cases of cystic kidney and one history of adenosarcoma renis. Over 100 pages are devoted to a description of these cases, and then the author proceeds to give an analysis of his material. He comes to the conclusion that the "congenital" and the "acquired" cystic kidney have one and the same origin, and that the cystic kidney of the adult is a result of an anomaly in the development of the organ—i.e., all cases are either congenital or have a "congenital disposition" in later life to undergo cystic development. Next the author proceeds to a critical analysis of the theories and finds that the retention theory must be set aside. An elaborate account is given of the commonest forms of malformation in regard to the second theory, and this is coupled with a review of the development of the normal kidney. About 40 pages are assigned to the anomalies of development found and described by the author, and the question is asked, Can the anomalies of development so observed account for the genesis of the cystic condition? The author, however, does not give an explicit answer; before doing so he wishes to see how the tumour theory fits in with his material. Then again comes another analysis of his cases, and in the end the conclusion is arrived at that the kidney is an organ very subject to disturbances of development which give rise to the formation of tumours. As to the nature and mode of action of the anomalies of development one can say but little.

Those especially interested will find a critical analysis of the question from all sides, but so far as we can judge, a correct theory still remains to be framed. The whole scheme of the monograph conveys to us the impression of careful study, with the expenditure of much labour and the application of much critical acumen.

Mental Diseases: a Text-book of Psychiatry for Medical Students and Practitioners.

By R. H. COLE, M.D. Lond. (London Medical Publications.) University of London Press: Hodder and Stoughton. 1913. Pp. 343. Price 10*s.* 6*d.* net.

Dr. Cole's work is a concise presentment of "the salient features of our present knowledge of psychiatry" intended for students and practitioners. Where debate is forbidden by spatial limitation it is hard to do otherwise than state a case in terms which are somewhat more precise than the diversity of current opinion would allow. The gain, however, to the student and to the practitioner for whom it may be necessary to apply definite terminology to indefinite intellectual complexes is great. The author has, fortunately as we think, devoted but little space to the classification of mental disorders, and though foreign influence is obvious he has not been dominated by it, and in the main has, in his clinical descriptions, followed well-established lines of British development. The same may be said of the author's epistemology and psychology, which may be summed up in his recommendation to the student "to follow out mental processes as far as possible on a neurological basis."

The chapters on the various affections treated of are divided into the customary paragraphs concerning etiology, physical signs, symptoms, diagnosis, prognosis, pathology, and treatment, and the arrangement tends to the orderly grouping of the student's knowledge. There are in addition chapters especially devoted to these same subjects and written from a more general point of view. That on treatment is particularly satisfactory. It is only too often the case that in the minds of the practitioner and of the layman treatment begins and ends in certification. The time previous to the occurrence of the symptoms which necessitate certification is in consequence wasted, and the chances of the patient's recovery are seriously diminished. Dr. Cole writes impressively of that which may be done from the curative and preventive points of view, and were his directions largely obeyed there would be less space required for the treatment of the chronically insane. A useful chapter on the legal relations of insanity precedes that upon treatment.

Eugene Aram: His Life and Trial.

By ERIC R. WATSON, LL.B. Edinburgh and London: William Hodge and Company. 1913. Pp. 221. Price 5*s.* net.

THE murder of Daniel Clark at Knaresborough by Eugene Aram retains its interest after a lapse of 150 years, and the various reasons for the prolonged fascination of the story are not difficult to see. First, to some extent the murder still remains a mystery, for though no doubt exists as to the actual guilt of Eugene Aram, and though the numerous reasoned or sentimental protests against his conviction have gained no weight, there are points with regard to the actual crime that have never been made quite clear. Secondly, the circumstances of the murderer's arrest have a strongly sensational appeal, for it occurred 14 years after the presumed date of the murder, when it might well be conceived that all possible evidence against him would have disappeared. The story is thus a stock example in favour of the very unsound proverb that "Murder will out." Thirdly, the character, or perhaps after Mr. Watson's analysis we should say the apparent character, of Eugene Aram, a schoolmaster, a poet, and a philologist of real originality and merit, appears now, as in Georgian days, antagonistic to any theory that he should be the cold-blooded assassin of a shoemaker for the sake of a small booty in money and goods.

We have all the elements of drama in a story where the material evidence of the crime was hard to come by and disputable in some directions, and where the difficulty of bringing home the charge against the accused was enhanced by the improbability of such a man as he appeared to be having committed the crime which circumstantial evidence desired to fasten upon him. To all these elements in the story Mr. Eric Watson does full justice, and he has set before the public for the first time the murder of Daniel Clark in proper perspective, substituting historical narrative for fable and romance, adding facts which have been overlooked or suppressed, carefully collating a large number of contemporary writings on the subject

and examining official records. In this way he has shown, to use his own words, that the murderer was in fact convicted "upon many concurrent proofs in a number of the strongest circumstances." He suggests, moreover, that until Thomas Hood and Bulwer spun webs of romance around the mysterious figure of the Lynn schoolmaster, it occurred to no one to have any doubt of Aram's guilt, but this is a negative proposition which must be hard to prove. We think that there must have been many, who were alive at the time of the trial, in whose minds misgivings were engendered by the nature of some of the evidence and the arguments for the defence put forward by the prisoner.

That the legal procedure of the trial, however, was itself inherently unfair to Aram's chances cannot be maintained on the whole. This is a point upon which Mr. Watson has brought his legal acumen to bear, and he finds that much of the criticism directed to show that the trial was an unjust one will not stand examination, and incidentally that Aram's famous defence of himself was not the masterpiece which it has been described to be, and indeed was hardly worth the praise which it received recently in our own columns. Undoubtedly, however, Eugene Aram's defence did very much impress the public, and possibly the jury. He displayed erudition, some skill in showing that the circumstances relied upon for his conviction were incorrectly put forward, and in words which have a particular claim to medical attention, he advanced some striking medico-legal arguments to show that there was no proof that the skeleton alleged to be that of his victim was composed of Daniel Clark's bones. He pointed out that the sex of the bones could not be ascertained for certain, that the place where they were found, being in the neighbourhood of a hermitage, was one where the finding of human bones was a matter of great probability, and he narrated some impressive instances in which the discovery of bones, actually near Knaresborough, as well as in all parts of England, might have led to similar charges against anybody. He questioned whether the human skull discovered had been fractured by violence during life, pointing out that only some 25 years before the alleged date of the crime the remains of the Archbishop of York, being taken up by permission, were found to have the skull bones broken, though his Grace had certainly died by no violence. The probability, however, is that he did not impress the occupant of the bench any more than a Hunterian lecture would have been likely to do, and in the end the jury had no difficulty in returning a verdict of murder, a conclusion which no one can read Mr. Watson's book without finding to have been inevitable.

Mr. Watson has done good service by telling the story of Eugene Aram and his crime in great detail with full and dated references to the documents. The bibliography of Eugene Aram is very large indeed, larger than would have been expected even when we remember the interest which the case created. The legal records are voluminous, the contemporary press, both London and provincial, devoted many columns to the story, and many reports of the trial are in existence, some merely anecdotal, some very scurrilous, and some distinctly inaccurate. County histories, criminal calendars, and medico-legal works abound with reference to one of the most arresting chapters in the history of human guilt. But it is perfectly clear that consultation of any one, two, or three of these, taken separately or together, might easily present a wholly inaccurate view of the case. Mr. Watson's industry and ingenuity in constructing a complete story from all this available material, in emphasising the probable and withdrawing from attention the apocryphal, have resulted in a thoroughly interesting book.

Practical Sanitation, with an Appendix on Sanitary Law.

By GEORGE REID, M.D. Aberd., D.P.H. Seventeenth edition, revised, with numerous diagrams. London: Charles Griffin and Co., Limited. 1913. Pp. 354. Price 6*s*.

THE appearance of 17 editions of any book in 22 years can hardly fail to testify to the appreciation it has received and to the practical value of its contents. The primary intention of this volume is to educate sanitary inspectors in matters with which they will be daily concerned, and in the principles which should guide their action. So many new considerations have been introduced into the work of public sanitary departments in recent years that periodical revision of a handbook of this kind is by no means an easy matter. Dr. Reid has, however, made a number of important additions, and the volume as a whole is abreast of the times. We have, however, been unable to find more than a passing reference to the Inspection of District Regulations made under the Housing and Town Planning Act, 1909; the duties of sanitary inspectors under these regulations are now so important and exacting that they should know them thoroughly and be instructed in the forms of reporting and procedure to be followed in making systematic surveys of insanitary house property in their districts. Another provision of this Act makes some important additions to the powers of local authorities where underground rooms are used for sleeping places, which might well have been referred to in the account of "cellar dwellings." Future editions may also usefully contain more definite advice to sanitary inspectors as to the way in which they should deal with factory chimneys emitting black smoke, and take action under the Sale of Food and Drugs Acts. The use of fluorescin as a means for detecting the pollution of water-supplies by contamination occurring at a distance has now been so well established as to merit detailed description in handbooks of this nature. We have hopes also for better typography when the eighteenth edition appears; the patches of blurred type in the volume before us produce an effect on the reader that can be described only as exasperating.

Tropical Medicine and Hygiene.

By C. W. DANIELS, M.B. Cantab., F.R.C.P. Lond., formerly Director of the London School of Tropical Medicine. In Three Parts. Part I.: Diseases due to Protozoa. Second edition. London: John Bale, Sons, and Danielsson. 1913. Pp. 277, with coloured and other illustrations. Price 7*s*. 6*d*. net.

IT is now about five years since the first edition of Part I. of Dr. Daniels's work was published, and during that time many advances have been made in our knowledge of tropical diseases. For that and other reasons a second edition was urgently needed. The author is well known as a man of

wide and varied experience at home and abroad, possessing all the necessary qualifications for the preparation of a handbook of tropical medicine and hygiene. Dr. Daniels in the first edition grouped the diseases of the tropics according to their known or probable causation. Subsequent experience, he now says, has quite justified this method of grouping these maladies. In deference to certain criticisms passed upon the first edition, he has altered the arrangement of some of the matter so as to diminish the amount of repetition. The chief diseases dealt with in Part I. are malaria, blackwater fever, piroplasmosis, yellow fever, sleeping sickness, the various forms of leishmaniasis. the diseases associated with spirochætæ, and lastly intestinal protozoa. The concluding chapter is especially devoted to giving a *résumé* of prophylaxis in protozoal diseases. Dr. Daniels holds the opinion that most medical men working in the tropics ought to be practical sanitarians as well as clinicians; for this reason, while paying due attention to the clinical characters of tropical maladies and to their proper treatment, he gives special prominence to the etiology and prevention of these diseases.

This book gives in a handy and concise form a great deal of valuable information to practitioners and students of tropical medicine.

Handbuch der Vergleichenden Physiologie.

Herausgegeben von HANS WINTERSTEIN. 38. Lieferung. Band III., Physiologie des Energiewechsels. Erste Hälfte. Jena: Gustav Fischer. 1913. Pp. 1295–1446. Price 5 marks.

IN this part R. F. Fuchs continues his lucid and voluminous exposition of the colour changes and chromatic cutaneous functions of animals, more especially of the arthropoda. The work of Keeble and Gamble is often referred to. A very full account is given of the chemistry and movements of pigments of the chromatophores and of the various conditions which influence their activity, as well as the nerve endings and development of the chromatophores. A particularly full account is given of the physiology of colour changes in crustaceans. About one-half of the text is devoted to the cutaneous colour changes in fishes, amphibians, and reptiles. This is undoubtedly the standard work of reference in all matters relating to the fascinating subject of colour changes in animals.

Organic and Functional Nervous Diseases: a Text-book of Neurology.

By M. ALLEN STARR, M.D., LL.D., D.Sc., Ph.D., Professor of Neurology, Columbia University, New York. Fourth edition, thoroughly revised. Illustrated with 323 engravings in the text and 30 plates in colours and monochrome. London: Baillière, Tindall, and Cox. 1913. Pp. 970. Price 25*s.* net.

THE fourth edition of this deservedly popular text-book has been enlarged by some 60 pages, and has been brought thoroughly up to date. The space allotted to functional diseases of the nervous system has been more than doubled. There is new material in the sections on tumours of the brain, pellagra, headache, disorders of sleep, the sympathetic nervous system—to enumerate but a few. Several of the criticisms advanced in our review of the third edition have been noted, as their occasion has been removed. In view of the adherence given to Freud's theories in America it is agreeable to note the unmistakable attitude of reasoned scepticism adopted by Professor Starr. While admitting the elements of truth in the Freudian hypothesis, he emphasises the errors, demonstrates the limited scope of the Freudian methods of treatment, and exposes its objectionable features.

The text-book has been improved by the addition of new matter and the revision of the old, and again we can recommend it to the favourable notice of the medical profession.

LIBRARY TABLE.

Lectures on Tuberculosis to Nurses. Based on a Course delivered to the Queen Victoria Jubilee Nurses by OLLIVER BRUCE, M.R.C.S. Eng., L.R.C.P. Lond., Joint Tuberculosis Officer of Essex. London: H. K. Lewis. 1913. Pp. 134. Price 2*s.* 6*d.*—The material in these lectures has been chosen with discretion and is discussed plainly. The directions as to treatment and prophylaxis can be easily understood and acted upon by nurses in charge of patients suffering from tuberculosis, especially pulmonary. Abstruse theoretical subjects are avoided, but a good account is given of the channels of infection, and a few remarks are added on the chief points concerning immunity. We cannot agree with Mr. Bruce that the practice of training a nurse to examine patients with the stethoscope is "perhaps to be recommended." The nurse's province is to carry out the physician's instructions, not to encroach upon the field of diagnosis. The remarks upon social conditions, hygiene of the nursery, and the general care of a consumptive patient, especially as regards the disposal of the sputum, should be carefully studied by nurses in whose hands the prophylactic measures to be adopted largely lie. Sanatorium treatment is well described. The theory of auto-inoculation is discussed, and the "graduated labour system" is explained in detail. This is very necessary. The word "graduated" appears sometimes to be forgotten; if a patient is at once put upon active work in the garden without passing through the previous grades the result is often anything but favourable to the patient. Short descriptions are provided of the principal complications of pulmonary tuberculosis, and directions are given as to the nursing of such cases. There is at present a considerable demand for nurses in connexion with the National Insurance Act, and we can recommend this small volume as a reliable guide to instruct and assist those nurses in their duties.

Grundriss der Pharmakologie. Von O. SCHMIEDEBERG. 7. Auflage, bearbeitet unter Mitwirkung von E. ST. FAUST. Leipsic: F. C. W. Vogel. 1913. Pp. 643. Price, paper, 12 marks; bound, 13.40 marks.—The rapid advances of pharmacological science render the revision of the text-books upon it an almost constant necessity. The first edition of the book before us was issued as far back as 1883. Up to 1895 three editions were issued, and as the present is the seventh edition, four more have been issued in the interval, that is between that year and the present time. The book shows careful revision throughout, and the references to modern literature are copious. The need, however, for further work is in some cases indicated in those references which bear a relatively early date. The work is divided into three sections. The first, on nerve and muscle poison, claims more extended treatment than the rest. It is subdivided into five groups: A, nerve and muscle poisons of the fatty acids; B, nerve and muscle poisons included in the alkaloid family; C, poison derivatives

of the aromatic series; D, poisons of the camphor and terpene group; and E, the poisons of the toxin series (digitalin, picrotoxin, sapotoxin). Section II. includes considerations of drug, vehicle, aromatics, bitters, and so forth; while Section III. deals with neutral salts, alkalies, the metals and their salts. This last section contains interesting and up-to-date references to that increasingly important group of bodies, the metal colloids. The classification adopted is as convenient as any, and on the whole presents a clear and systematic view of the "foundations."

Synopsis of Midwifery. By ALECK W. BOURNE, B.A., M.B., B.C. Cantab., F.R.C.S. Eng. Bristol: John Wright and Sons, Limited. 1913. Pp. 212. Price 5*s.* net.—This handbook is intended to present the principal facts concerning obstetrics in such a form as to be useful to students preparing for their examinations. The book is to be used mainly for purposes of revision in conjunction with the ordinary more detailed text-books dealing with the subject. Important things from the examination point of view have been emphasised and a good deal of space has been devoted to treatment. The book should perform a useful function if used for the purpose for which it is intended; and based as it is upon the best-known text-books its teaching is not likely to lead the student astray.

MISCELLANEOUS VOLUMES.

OUR selection of volumes this week is truly miscellaneous, embracing biography, travel, antiquarianism, occultism, and food and cookery.

Mr. ARNOLD HAULTAIN, who appears as Boswell to Professor Goldwin Smith's Johnson, has given us in *Goldwin Smith, His Life and Opinions* (London: T. Werner Laurie, Limited. Pp. 304. Price 18*s.* net.), a most interesting book, though it is a misnomer to call it a "Life." But the "Conversations and Comments," which cover the period 1898–1910, show the Sage of Toronto as he really was—his brilliancy, his grim sense of humour, and, we must add, his extraordinary facility for being disagreeable in print. Like Johnson, he was a good hater, and the special objects of his dislike were the Jews in general and Disraeli in particular. The latter had called him "a wild man of the cloister," a phrase which Mr. Haultain considers not altogether inapt, and illustrates by saying that Goldwin Smith, when talking about some strikes, said: "Why cannot people be satisfied with what they have got?" At this time, says Mr. Haultain, his own capital was about £160,000. But no one can read Mr. Haultain's interesting and capitally written book without feeling that Goldwin Smith, despite his many limitations, was always absolutely sincere, and a truly great man.

From the ecclesiological point of view Spain equals if it does not surpass Italy, apart from Rome. Nowhere else has the primitive arrangement of the choir survived in such completeness as in Spain, where in the marvellous and gorgeous choirs of Seville, Granada, Toledo, and Burgos, to name only a few, may be seen the full development of the little embryo, such as the arrangement of San Clemente at Rome. In *The Cathedrals of Southern Spain* (London: T. Werner Laurie, Limited. Pp. 248. Price 6*s.* net) C. GASQUOINE HARTLEY (Mrs. Walter M. Gallichan) has written a book which should be read by everyone who is about to visit Spain. She writes with the mind of an artist, and as one who realises all that the Church meant and means to a Spaniard, and she is fully impressed with the dignity and richness of Spanish ritual. Sometimes her admiration goes beyond that which we can feel—for instance, in the matter of Spanish glass and windows. They are, it is true, eminently fitted for the climate as regards size and position, and the glass is often beautiful in colour, but when she says (p. 197), "In Barcelona as in Seville Cathedral one feels that one has never seen church windows before one visits Spain," we can only wonder whether she has ever seen Le Mans or Chartres. But we are quite of one mind with her in her insistence on the richness and sumptuous character of a Spanish cathedral. There is nothing like it elsewhere in Europe, except in the great churches of Russia, both monastic and diocesan, such as the two great churches in Kieff. The same feeling for dignity and richness which led the Spanish Church to fight for and maintain the Mozarabic Liturgy (even though it be used only at Toledo) is apparent in the arrangement and decoration of her churches, although even in them the "foul torrent of the Renaissance," to quote Ruskin's characteristic exaggeration, brought forth the monstrosities of Churriguera. Mrs. Gallichan's book is carefully illustrated with reproductions of photographs which add to the interest of the descriptions. In one place, however (p. 206), the account given in the text of the Puerta de Las Infantas, at Lerida, does not seem to us to tally with the picture thereof.—— Sir FREDERICK TREVES'S *Land that is Desolate* (London: Smith, Elder, and Co. 1913. Pp. 287. Price 6*s.* net.) received an extended notice on publication, in THE LANCET for Jan. 25th, 1913. It is therefore unnecessary to do more here than to call attention to its republication in a popular edition.

Personal Experiences in Spiritualism, by HEREWARD CARRINGTON (London: T. Werner Laurie, Limited. Pp. 274. Price 7*s.* 6*d.* net), is a most amusing and instructive work. Mr. Carrington is interested from a scientific point of view in so-called "spiritualistic" phenomena, and has come to the conclusion that "98 per cent. of the phenomena are fraudulent." He is, on the other hand, convinced that mediums presenting genuine manifestations can be found, and that Eusapia Palladino is one of these. The latter half of his book is devoted to an account of Eusapia's American *séances*. His theory is that the phenomena are due to some force which emanates from her, or from some intelligent will other than hers but manifested through her. His book concludes with a plea for the foundation of a psychical laboratory on the lines laid down by Sir Oliver Lodge in a paper contributed to the *Journal of the Society for Psychical Research* in 1894. The subject certainly needs more investigation. The first part of the book is an account of Mr. Carrington's investigations into various spiritualistic phenomena, which were all proved fraudulent. They form extremely entertaining reading, but it makes for sadness to learn that our race numbers among its members those who can exhibit, as do the believers in these phenomena, such foolish credulity. And one of them was judge of a Probate Court!

Amateur collectors of old furniture, old pottery and glass, embroideries, and so forth, will doubtless revel in *First Steps in Collecting* (London: T. Werner Laurie, Limited. Pp 324. Price 3*s.* 6*d.* net), in which GRACE M. VALLOIS chats discursively of "Chippendales" and "Adamses," and "Sheratons" and "Heppelwhites," of "barley-sugar" turning, of Chelsea china, salt glaze pottery, and slip ware, and many other quaint delights of the æsthetically minded. There is in the book much of historical and biographical anecdote and antiquarian lore. "Herb" and "physic" chests receive attention, and some quaint recipes are quoted, notably a preventive against the plague (p. 311), which consisted of "a quill as is filed up with quicsilver and sealed up with hard waxe and soed up in a silke thinge with a string to ware about your neck." It was not free from danger, though, being "nitty" and liable to affect "one's teth and eies" unless "corked up fust and then seled."

Rearing an Imperial Race. Edited by CHARLES E. HECHT, M.A. (London: Published for the National Food Reform Association by the St. Catherine Press. 1913. Pp. 508. Price 7*s.* 6*d.* net.)—We commented in THE LANCET of Sept. 14th, 1912, on the proceedings at the Second Guildhall School Conference on Diet, Cookery, and Hygiene held in May, 1912. This volume consists of a full report of those proceedings, to which are added extracts from reports of medical officers of health, reprints of various articles which have appeared in the press, articles on diet by school and other medical officers, accounts of the methods for feeding school children in the United States, France, Switzerland, and Germany, and notice of the objects and methods of the National Food Reform Association. The book contains much useful information, to which is supplied a very full index, and will

be found of value in view of the forthcoming Education Bill. ——*Mrs. Edwards's Cookery Book* (London: T. Werner Laurie, Limited. Pp. 303. Price 6*s.* net) covers a large area, giving many excellent recipes, which, however, are not always quite clear, even to an experienced cook. Joints, turkeys, and suchlike are often directed to be roasted for a definite length of time irrespective of weight, and so on. The author's methods are quite different in many respects from those ordinarily accepted, but in judicious hands much could be done with them. There are some good bills of fare for households of varying capacities and recipes for drinks and invalid cookery. The domestic remedies are of a simple household character, and with the exception of one cough mixture containing laudanum appear unexceptionable.

Reports and Analytical Records

FROM

THE LANCET LABORATORY.

(1) KEFIR SALIÈRES; (2) EXOL (COGNET); (3) AGONOL (COGNET); (4) HEPASUINE ELY; AND (5) ZOMYO BEEF.

(AGENCY: ROBERTS AND CO., 76, NEW BOND-STREET, LONDON, W.)

THESE five French pharmaceutical preparations are all of interest. 1. This kefir, or effervescent sour milk, is prepared after the formula of M. Ch. Salières, which aims at excluding foreign or contaminating bacteria. In other words, the preparation is a culture of a pure ferment or lactose yeast. According to our analysis the kefir has the following composition:—Total solid matter, 4·10 per cent.; protein, 2·64 per cent.; lactic acid, 0·35 per cent.; milk sugar, traces; fat, 0·16 per cent. It is primarily intended for diminishing the activities of the gastro-intestinal flora on the lines laid down by Metchnikoff. It is a satisfactory preparation for the purpose. 2. Exol is an elegant combination of calomel, santonin, and thymol, contained in glutinous globules, which is suggested for use as a specific in the treatment of ankylostomiasis. We had no difficulty in determining the presence of the medicaments indicated. 3. Cognet's agonol is described as a neutral benzoic ether of santalol which surrenders in the body its constituents in a nascent and therefore very active form. It is stated to be destructive of both the gonococcus and its toxins. 4. Hepasuine ely is described as containing all the active medicinal and organo-therapeutic principles of cod-liver oil. It is prepared in the form of an extract from pig's liver. The extract is combined with a syrup of sugar. We found present traces of biliary acids, a decided amount of iodine, arsenic in organic combination (sodium methyl), and hypophosphites. It has uses in connexion with the treatment of tuberculosis and also in disorders of the liver and bowels. 5. Zomyo beef is a clear brown fluid said to be made with beef juice and glycerophosphates. We found present 22·8 per cent. of soluble matters. Amongst these protein amounted to 13·13 per cent. and mineral matter to 5·75 per cent. The mineral matter consisted largely of phosphates derived from the glycero-compound. Its use is indicated in those disorders in which general nutrition is impaired. A large quantity, however, would have to be administered before any appreciable amount of nutrient was given. Its use is a pre-digested beef preparation containing chiefly albumose and peptone.

IODEX PESSARIES.

(MENLEY AND JAMES, LIMITED, MENLEY HOUSE, 39, FARRINGDON-ROAD, LONDON, E.C.)

The employment of iodine in gynæcological practice has been limited owing to the irritating character of the ordinary preparations. In association, however, with a bland fat, it is stated that iodine can be introduced in the form of a pessary, with satisfactory results. The pessary is contained in an easily soluble gelatine envelope which serves to prevent impairment of the iodine value. On the contents being distributed the iodine is yielded in the free state ready to exert its antiseptic and healing properties. Each pessary contains 2½ grains of free iodine regularly distributed in a neutral base which melts at the body temperature.

EUMENTHOL TOOTH POWDER.

(HUDSON'S EUMENTHOL CHEMICAL CO., LIMITED, SYDNEY, AUSTRALIA. LONDON AGENTS: F. NEWBERY AND SONS, LIMITED, 27 AND 28, CHARTERHOUSE-SQUARE, E.C.)

This tooth powder is designed on sound principles and is very agreeable to use. The distinctive feature about it is that in addition to some approved germicides it contains magnesium peroxide which readily parts with free oxygen, as our experiments have shown. This probably leads to a favourable cleansing action upon the mouth and a slight whitening effect upon the teeth. The powder is finely divided and is free from harmful constituents and gritty substances. Analysis showed that the powder was capable of giving off oxygen equal to 1 cubic centimetre per gramme. This disengagement of oxygen leads to the formation of a pleasant and wholesome foam.

SOLUTION OF DIGIPURATUM.

(KNOLL AND CO., 8, HARP-LANE, LONDON, E.C.)

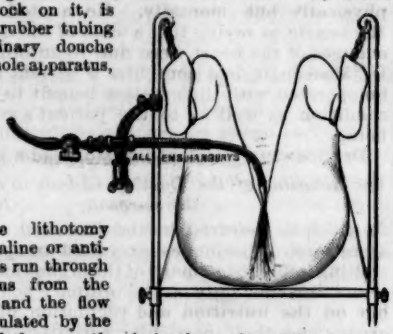
We have referred to digipuratum on a previous occasion, when we pointed out that it was a physiologically standardised preparation of digitalis in which the undesirable principles of the plant had been eliminated and the principles of known activity retained. The solution is, further, stable. It is intended for administration only by the mouth. In order to measure accurately the dosage in drops a small bent glass rod is placed in the neck of the bottle. The rod terminates outside in a rounded end, while the end inside is flattened so as to prevent the rod from falling out. This is a very convenient and simple method of obtaining a regular flow of uniformly sized drops.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced: Dr. Hüpeden, of Hannover, an author of various treatises on medical politics, aged 85.—Dr. Ervin Mienswicz, *privat-docent* of medicine in the University of Cracow.—Dr. John Green, formerly professor of ophthalmology in the George Washington University Department of Medicine, Washington.—Dr. Franz, of the Government laboratories, Berlin, formerly of the Physiological and Pharmacological Department of the Imperial Sanitary Office, aged 35.—Dr. Berthold, an eminent Carlsbad physician, who was at one time in practice in London. Many Royal and distinguished persons were amongst his immense *clientèle*.—Dr. E. Guillet, clinical professor of surgery in the Caen Medical School.—Dr. Antonino D'Antona, clinical professor of surgery in the University of Naples.—Dr. L. Kessler, extraordinary professor of gynæcology and obstetrics in the University of Iurieff (Dorpat).

New Inventions.

PERINEAL SPRAY OR DOUCHE.

THIS consists of a flexible metal tube made of pewter which can be easily bent into any fixed position. To one end of this tube is attached a small piece of rubber tubing carrying a glass nozzle, while the other end, which has a stopcock on it, is attached by rubber tubing to the ordinary douche can. The whole apparatus, which can be readily sterilised by boiling, is attached by means of a sliding bracket to one of the lithotomy uprights. Saline or antiseptic fluid is run through the apparatus from the douche can and the flow is easily regulated by the stopcock. If the operation is in the region of the anus the pewter tube is so bent that the glass nozzle points downwards and impinges on the central point of the perineum. If the operation is on the vulva the nozzle is fixed just below the symphysis pubis. From these points the regulated stream of fluid washes away all blood, gives the surgeon a clear view of the field of operation, and saves an assistant from constantly swabbing the wound, and to a certain extent injuring the tissues. It has been found especially useful in operating on hæmorrhoids by Whitehead's method. This apparatus, which is shown in the illustration, was designed by me five years ago at the request of the late Sir Frederick Wallis. It has been in use at St. Mark's Hospital since that time and has given the utmost satisfaction. Care must be taken in bending the pewter tube to do so always at the nozzle end and not near the joint at the bracket.



The apparatus is made by Messrs. Allen and Hanburys, Limited, Wigmore-street, London, W.

Harley-street, W. H. GRAEME ANDERSON, F.R.C.S. Eng.

DECEMBER, 1913, AT HOME AND ABROAD.

The Weather at Home.

UNTIL after the middle of the month the weather was unusually mild for the time of the year throughout the British Islands, the wind being constantly between south-west and west, and often blowing a gale on various parts of the coast and sometimes with considerable force inland. During the latter part of the period, however, the wind shifted round to north-west and north, and very occasionally died out altogether, the effect on the temperature being most marked. In the northern half of the kingdom the frost was intense, and in the south and south-east the thermometer left its springlike level for a few degrees below the freezing point. The mean temperature for the whole month was, nevertheless, above the average for December in almost all parts of the kingdom. A mild December generally means a wet one, but last month formed an exception, as the total rainfall was below the normal, the deficit being very large in many districts. In the metropolitan area, at Kew, the mean maximum temperature was 45·5°, an excess on the average of 1·8°, while the mean minimum was 38°, an excess of 3°. The first fortnight saw the sheltered thermometer rise to 50° or above on several occasions, the highest figure being 54° on the 12th, but after the 22nd it seldom rose to 40°, and the minimum readings were mostly below 32°, the lowest of all being 28° on Christmas morning. The rainfall, which was just below an inch, fell on 14 days, and was just an inch below the normal, while the sun, which only shone on 14 days, yielded a total of 41 hours, an excess of 5 hours. Nottingham and Bath were both nearly 2° colder at night than Kew, and the former was slightly colder during the daytime also. Bath, however, with a mean maximum of 47°, had warmer days than the metropolitan station. The extreme south-west of England maintained its reputation for mildness and equability. At Newquay the mean maximum was 48·2°, and the mean minimum 42·7°, while at Torquay the corresponding figures were 49° and 41·5°. The Scilly and Channel Isles were milder still. At both places the mean afternoon maximum was 50° and the mean mininum of the nights about 43°. The south coast, as represented by Brighton and Bournemouth, had a mean maximum of 47°, while the minimum was 40° at Brighton and 39° at Bournemouth. The duration of sunshine varied a good deal in different parts of the kingdom. In the Midlands there was little, the figure at Nottingham being only 15 hours, or no more than half the normal, but Bath had 45 hours, Newquay 47 hours, and Scilly 41 hours. Brighton, Jersey, Torquay, and especially Bournemouth, were more sunny, the general figure being about 55 hours, and that at Bournemouth exceeding 60 hours. The rainfall varied considerably in the south-west. At Torquay, where the total was 2·1 in., there were only nine rain days, but at Newquay the total equalled 3·9 in., and was contributed by as many as 18 days. Scilly had 20 rain days, giving an aggregate of 3·9 in., and Jersey 15 days, with a total of 3·5 in. All these totals are below the normal, that at Torquay being 2 in. below. The frost at the end of the month was felt along the south and south-west coasts generally, but at Scilly and Jersey the sheltered thermometer fell no lower than 33°.

The Weather Abroad.

On the continent the weather was not cold for December, but colder than in the south and south-west of England. At Paris, Brussels, and Berlin the mean maximum temperature was 42° or 43°, and the mean minimum 33° at Paris, 34° at Brussels, and 35° at Berlin. The most severe frost was experienced in the eastern and central parts of France. At Paris the thermometer in the screen descended to 18° on the 22nd and 23rd, and to 22° on the 24th and 31st, and at Brussels it went nearly as low on the same dates. Berlin, however, was not so cold, the lowest temperature being 21° on the 19th. Berlin was, nevertheless, more wintry at the end of the month, when an unusually heavy fall of snow occurred. During the month as a whole Berlin had been rainy, the gauge yielding at least as much as 0·04 in. on no less than 20 days, amounting to an aggregate of 4·6 in. At Paris, on the other hand, there were only eight days with rain, giving a total of 2·6 in., and at Brussels 18 days, with a similar total. Many days at the French capital were sunless, and the total number of hours for the month was no more than 46 hours. The extreme south-east and south-west of France, as represented by Nice and Biarritz, were colder at night than the south-west of England, both resorts having a mean minimum temperature of 40°. The days were, however, warmer, the mean maximum at Nice being 54° and that at Biarritz 49°. Neither place entirely escaped the frost at the end of the month, although its visitation was transitory. At Nice the month generally was bright and sunny. Only six days brought rain, and the total fall was no more than 0·7 in., but at Biarritz rain fell on twice as many days and gave a total three times as large. Throughout Italy the weather was mostly fine, but frost was experienced at times as far south as Rome, and the temperature of the northern half of the country was usually lower than on the Riviera. Even Naples had some cold days, although as a rule the temperature was about midway between 50° and 60° during the afternoon. Madeira remained unaffected by the cold snap that visited the south of Europe. At Funchal the sheltered thermometer rose to 70° or higher on no less than 18 days, and fell no lower than 57° on as many nights. The mean maximum temperature was as high as 69° and the mean minimum 57°. The weather was also very fine as well as warm. On only five days was there rain, and the total fall, 2·0 in., was nearly all contributed by the 21st and 26th. Comparing the December mean temperature with that in the south of England, it may be said that Funchal was as warm as Brighton is in an average June during the day, and about as warm as an average July at night.

FOURTH ANNUAL MEETING OF CLINICAL CONGRESS OF SURGEONS OF NORTH AMERICA.

(*Concluded from p. 131.*)

ON Nov. 12th Dr. J. M. T. FINNEY, of Baltimore, read a paper on

Pyloroplasty.

During 14 years in which he had practised it, he said the immediate as well as the final results had been most encouraging. Although gastro-enterostomy and gastrectomy had a greater vogue, he believed that the simplicity and satisfactory ultimate results of pyloroplasty constituted it a safe and useful procedure.

The Treatment of Cancer.

On Nov. 13th Dr. THOMAS S. CULLEN, of Baltimore, read a part of the report of the Cancer Campaign Committee of the United States. He prefaced his remarks by saying that few surgeons had sufficient radium to give it a thorough trial, for extensive doses sometimes cured when smaller ones had little effect. Dr. Cullen advocated the standardisation of radium. Only time would show the extent of its utility. Surgery at present offered the best chance of cure. Instruction of the people in the nature of cancer would lead them to seek surgical aid. In this work the lay press had rendered good service. He urged the extension of lectures in women's clubs, factories, and elsewhere, the keeping of accurate records, and analysis of hospital statistics. Surgical pathologists must aid in diagnosis, and radical operation on diagnosis be urged. The frequency of uterine cancer was emphasised and its symptomatology discussed. Permanent relief followed operation in from 20 to 25 per cent. of cancer of the cervix, and in cancer of the fundus two-thirds were cured. These successful results would be greatly increased when women learnt to understand their condition and submit to early operation.

Dr. EDWARD REYNOLDS, of Boston, spoke of the American Society for the Control of Cancer—a body composed of prominent medical men and influential laymen. It was perfecting an organisation of national scope for the enlightenment of the public. It had already been guaranteed the large amount of money necessary. It intended to coöperate with all the existing organisations in the study of cancer.

Dr. FREDERICK R. GREEN, of Chicago, read a paper on the Education and Publicity of the Campaign by means of the Council of Health and Public Instruction of the American Medical Association. He said that the first thing was to interest the public, and especially the wealthy and influential public, in the problem of the control of cancer. The second necessity was the careful investigation of the entire problem of cancer. There was to-day in the records of the different hospitals of the United States an enormous mass of undigested material on the subject. The third requirement was the distribution to the public of the results of such an investigation. This was obviously a task for the Council of Health and Public Instruction of the American Medical Association.

On Nov. 14th Sir W. ARBUTHNOT LANE gave some further observations on

Intestinal Stasis.

He referred to the circumstances which led him to remove sections of the large bowel for chronic intestinal stasis. This condition, he said, was one of the most formidable causes of misery. Several patients had attempted to commit suicide on account of it, and in all such cases the removal of the large bowel had restored the sufferer, not only physically but mentally. He quoted Dr. James Mackenzie as saying that a mass of the degenerative changes of the heart were due to auto-intoxication. Dr. Mackenzie had sent him a patient upon whom he operated with the greatest benefit to the cardiac condition as well as to the patient's general well-being.

Dr. ROSWELL PARK, of Buffalo, read a paper on

The Relation of the Ductless Glands to the Work of the Surgeon,

in which he referred to the fact that the internal secretions, or hormones, exercised an apparent controlling influence on many of the organs and functions—and this not only on the ordinary body functions but on the nutrition and regulation of individual organs and their particular activities, even to the extent of becoming responsible for the development of certain mental traits or personal characteristics which might make or mar the individual. He pointed out that even to-day there was much to learn concerning the functions of the thyroid. It seemed to have an influence on the formation of the blood. Its most important work appeared to be elaboration of iodothyrin. Certainly iodine was its most important constituent, and the thyroid was richer in it than any other organ. The parathyroids had only within late years received proper consideration, but in that short time had attained an importance in pathology in inverse ratio to their size. It was now generally believed that nearly all cases of tetany in man were due to defective thyroid function. The thymus seemed to have much to do with the development of the entire bony system; when its activity was reduced ossification was much interfered with and proceeded irregularly and from scattered points; sometimes it failed utterly, as when the first pair of ribs failed to ossify and the other ribs were left weak and subject to early deformity. We could scarcely do more than transplant the parathyroids. The thymus we might have to extirpate or transplant. Transplantation of adrenals had met with questionable success. Removal of the genital glands was rarely demanded for the conditions under present consideration.

Dr. CHARLES H. MAYO, of Rochester, Minnesota, read a paper on

Goitre.

He reviewed the various methods of treating goitres. Regarding exophthalmic goitre, while the disease was amenable to surgical treatment by the removal of a large part of the hypersecreting gland, this procedure must not be considered emergency surgery. During exacerbations all cases should be considered medical. Surgery was indicated during the upward wave of improvement.

Several other papers of value were read. The following officers were elected:—President, Dr. John B. Murphy, Chicago; Vice-President, Dr. George E. Armstrong, Montreal; secretary, Dr. Franklin H. Martin, Chicago; treasurer, Dr. Allen B. Kanavel, Chicago. It has been decided to hold the next meeting of the Congress in London during the fourth week in July, 1914.

THE LANCET.

LONDON: SATURDAY, JANUARY 17, 1914.

Some Points with Regard to a State Medical Service.

THE difficulties which have arisen in working the panel system under the National Insurance Act may have been magnified, but are none the less real; and the financial conditions which are affecting Approved Societies, owing to the calls upon their resources for sickness benefit, have contributed to bring into some prominence before the general public the question of a State Medical Service. Whether the public has been aroused to any great degree of interest or no, does not alter the fact that we have here a question which affects it no less closely than it does the medical profession. Frequent opportunities have been afforded recently to read observations upon the subject in the lay press, and we may refer here to a temperate and clearly written article which has appeared in the *Morning Post* as indicating the points with which the public must concern itself, if any change in present conditions should come within the scope of practical politics. At the present time there appears to be some misunderstanding of the subject on the part of the public, or the institution of a State Medical Service would hardly have been put forward at meetings of the managers of certain Friendly Societies, with the suggestion that in some manner there would follow upon this drastic revolution of existing procedures a diminution of expenditure upon sickness benefit. This might indeed be brought about by placing all medical treatment in the hands of medical officers appointed by the societies, but we do not conceive that the officers of a State Medical Service would occupy any such position. Their responsibility for the welfare of their patients would be enforced by the superior officers of their own service, and their competency would be tested by the efficient performance of their professional duties, and would not be considered proved by economical advice upon pecuniary matters. This we take to be the view also of Sir JOHN COLLIE, who on Monday last at Caxton Hall argued in favour of a State Medical Service as a substitute for the panel system. In all the circumstances it is not surprising that at the recent conference of Friendly Societies a proposal that there should be a State Medical Service was rejected by a substantial majority.

The establishment of such a service would affect a very much wider public, and one more likely to be critical of the possible medical advantages than those responsible for Friendly Society finance. The members of the societies at present, in contradistinction to the managers of the societies, seem to be well contented, as a rule, with the medical service provided under the National Insurance Act; they do not find fault with the increased expenditure on sickness benefit as long as they are its recipients, and they are also willing to avail themselves of that which the medical profession unanimously declared they ought to have—namely, the free choice of doctor. It is true that this freedom of choice only exists to a limited extent, and it is true also that in some localities it is being threatened, as our Special Commissioner has shown in more than one of the articles in which for the past year he has been reviewing the working of the Acts; but in districts where most of the medical practitioners are on the panel it does exist in a substantial degree. In London, where the number of medical men on the panel is relatively small, and was at one time smaller still, the desire of the working man to choose his medical man for himself is proved by the accumulation of a fund in respect of unallotted patients so large that its bulk has created a difficulty in disposing of it, a difficulty which we cannot help thinking has been much exaggerated. While, then, the public and the medical profession are largely at one, as far as the working of the existing National Insurance Act is concerned, in maintaining the principle of permitting to all sick persons the right to choose their medical attendants, it will be necessary for those who advocate the establishment of a State Medical Service to show how under any scheme of the sort a similar discretion could be given to a far greater public. The development of national health insurance which many expect, and which some consider inevitable, is the extension of medical benefit to the dependents of those now insured. We have seen it estimated that this would bring under the State medical treatment provided by insurance about 40 million out of 45 million inhabitants of Great Britain, and without doubt the numbers would be so large that a scheme of medical service to meet their wants would be almost equivalent to a State Medical Service. But why should these women, on behalf of themselves and of their children, be less tenacious of the right of free choice than their husbands are already? In fact, we should say they would be much more so, and that men being in many conditions of life accustomed to be attended by, and to obey, the particular medical officer appointed for them are familiar in a way which women are not with the principles of regimented service. As matters now stand freedom of choice is enjoyed in different degrees by the whole population. It is exercised most absolutely by the rich, who can go wherever they like in order to consult whomsoever they like; and in great degree by those many others who are, however, restrained by pecuniary considerations from exercising their selection except in their immediate neighbourhood. In less degree still it is enjoyed by those who unless they choose to pay twice over, as insured

persons and as private patients, have to consult medical men on the panel of their district, revising their choice at stated periods only. The inhabitants of any district can, however, do for themselves to some extent that which under a State Medical Service would be out of their power. They can by giving general proof of their confidence retain the services of a medical attendant whom they esteem.

A man who has built up and is increasing his practice with marked success is not likely to leave it readily. But under a State Medical Service a medical officer enjoying a fixed salary for the performance of a stated amount of service, would from time to time earn promotion and be anxious to obtain the emoluments of a new and better post. He might be deservedly esteemed by his patients, but his success in treating them would, if anything, conduce to shorten his stay among them, and his removal to a superior position elsewhere would lead to the appointment of another officer, selected, no doubt, with some care for their benefit, but selected entirely by others. The exercise of free choice of a medical adviser is valued in different degrees by different individuals and by different classes, but we can hardly conceive that the large body of those now affected by the Insurance Act who before were not members of Friendly Societies, or who as members conditionally exercised that right, will acquiesce without protest in any attempt to deprive them of it. Moreover, it may be pointed out that members of the legislature are as free to select their medical advisers as they are to select their legal or spiritual advisers, and that they would find it difficult to justify the application to others of a compulsion which they would resent if applied to themselves. The free choice of a doctor is the matter upon which everything turns. That a State Medical Service might offer an alluring prospect to many young men entering the medical profession cannot be denied. The prospect of the possible institution of such a service is a matter of grave importance to the profession and to the public, and its discussion from every point of view is desirable. For this reason we have dwelt upon what we conceive to be certain important practical points; the acceptance or rejection of any innovation by the public when expressed through the ballot-box will probably be influenced by considering the same points. Some form of State Medical Service may arrive, but the difficulties ahead are solid.

Radium and Cancer.

PERIODICALLY the influence of radium over cancer comes under public attention in some form or another through the agency of the lay press, as well as in the columns of medical journals, and the reasons for the enormous attraction of the subject for laymen are clear. On the one hand, we have a fatal disease with such a prevalence that a large proportion of the population have first-hand knowledge of its ravages while in some directions that prevalency seems to be increasing. On the other is a newly discovered element having remarkably fascinating properties, not the least of which is that of inhibiting the growth and development of living cells. About the working of radium we know a good deal. Abnormal cells are more susceptible to its influence than normal ones, so that what may be destructive to the one class is no more than a stimulant to the other. These are the principles which form the basis of the radium treatment of cancer, and they have been known to radiologists for some time past. Take the instance of a small superficial epithelioma; there are now numerous cases of such being cured by a few properly adjusted applications of radium, and there has been no recurrence after some years in cases where but one application was made. This much may be definitely stated, but we are on less safe ground if we say further that all such cases may be cured by the same means. Some carcinomatous conditions arising on a moist mucous membrane, as that of the mouth and tongue, have so far given very poor results from radium or X ray treatment. Furthermore, it may be assumed that the action of radium and the X rays is almost, if not entirely, local, and it is only the malignant cells receiving efficient radiation that are destroyed. The successful treatment of a malignant tumour requires a sufficiency of radium so disposed as to irradiate effectively all the cells of the growth, particularly the advancing margin; it is necessary also that metastasis should not have commenced, for at no stage will radium or the X rays give us control over this unfortunate property of most malignant neoplasms.

Now everything about radium in connexion with the treatment of cancer, that we can as yet be reasonably sure of, has been known to radiologists for a considerable time, and in view of the wide publicity that is suddenly being given to the subject it is inevitable that medical men should ask whether the facts have been multiplied, or whether any new principles have been discovered. The answer is, we think, in the negative, and we therefore find it regrettable that medical men should encourage the publication of a contrary view in the lay press in the absence of any advances that have stood an adequate test of time. No one but a medical man, or a man with considerable knowledge of physics, can properly assess the value of the statements which have recently been made public, and the tendency of the layman has been, we fear, to read into these communications that which he wishes to believe. In many instances grievous disappointment and serious financial embarrassment have been needlessly added to the sufferings of the victims of malignant disease by the publication of ill-understood medical evidence, and deeply interested as we are in the splendid work now being done by radiologists and surgeons with the new machinery at their disposal, we should much deplore this happening in connexion with such work. The crucial question is,

How many cases of undoubted and inoperable malignant disease have been completely relieved by radium treatment, and have remained apparently cured sufficiently long to give reasonable hopes of permanent relief? The number must be small, we think, and the permanent relief probably only occurs where the circumstances are unusually favourable. Up to the present radium has brought us little, if any, nearer to the discovery of a definite *cure* for malignant disease, and we feel that our science is not benefited by allowing enthusiasm to outrun discretion. At the same time, we are glad to be able to record considerable advances in practical radium therapy. With larger supplies of radium, and greater experience in applying it where it can do the most good, an increasing number of cases are being relieved and remaining well for a longer time. Far more progress would have been made if all malignant growths of any given variety reacted to radium in a similar manner. But cases apparently alike may give opposite results to the same treatment, and though this may be overcome by improved technique the difficulty is a serious one. It serves to show as much as anything else how very imperfect is our knowledge of this mysterious disease. And could there be a better reason why workers in a promising field should be guarded in their public utterances? We want, before anything is said in public that may lead to bitter disappointment, far more clinical records than we yet possess. The results of cases must be collated and methods must be compared, for which time is required. This we understand to be the feeling also of the Radium Institute, where wards will shortly be opened in extended premises, and where the best of additional opportunities for observation will be afforded.

Regarding the results reported from the cancer research department of the Middlesex Hospital, no stress should be laid upon Dr. LAZARUS-BARLOW'S recent statement. It is that of a pathologist having no responsibility for the treatment of any patients, the figures given are incorrect, and the statement has been repudiated by the surgical staff of the Middlesex Hospital in the columns of the *Times*. With an adequate supply of radium and a series of cases accessible and susceptible to its action, good results are easy to understand, although highly creditable to those who carry out the treatment. But the time has not come for any public announcement, however guarded, pointing to radium as a *cure* for cancer, while any statement of results obtained at a hospital should clearly come from the medical staff who carry out the treatment and watch the results. The rarity of radium limits the number of cases, and for a time all public utterance that is not very carefully worded may be harmful. The present price of radium is probably artificially inflated, but we must remember that the conditions are unusual, and, as anyone who has had much experience of metallurgical chemistry will understand, the isolation of a grain of precious metal from two or three tons of ore is of necessity a prolonged, expensive, and tedious operation. For example, it will require a method of separation very different from that in use at present to enable radium to be sold for a few shillings per milligramme, as has been suggested by Dr. LAZARUS-BARLOW. Also, when we consider that manufacturers can dispose of all they can make for months in advance, and the absence of any reason why the law of supply and demand should not apply in this as in any other commodity, it is difficult to see how the present price can be materially altered until the sources of supply have been extended, and methods of extraction greatly simplified and accelerated. It is noteworthy that an English firm was prepared to supply pure radium bromide at less than £15 per milligramme to some London hospitals. The offer was not accepted and the whole amount, including the output for several months ahead, has been disposed of to Germany at the current rate of about £20 per milligramme. Already we are promised more extensive supplies from Cornwall and simpler methods of extraction are said to have been discovered. If these prospects materialise the outlook for a larger and cheaper supply becomes very bright. In the meantime, we should not allow our enthusiasm for radium to make us forget what we owe to the X rays. In the treatment of accessible growths it is doubtful if radium has any advantage over the X rays properly applied; indeed, it is a question if the X ray tube has yet been used to its full advantage for the treatment of malignant disease. We appear to be on the eve of some radical improvements in the construction of X ray tubes, and if these give us the complete control over the quantity and quality of the radiation that is promised we may confidently look for important advances in radio-therapeutics.

FOREIGN UNIVERSITY INTELLIGENCE.—*Baltimore (Johns Hopkins University)*: An arrangement has been made with the University of Breslau for a temporary exchange of teachers, Dr. Felix Landois coming for a semester as assistant to one of the professors (Dr. Halsted), while Dr. Geo. Heuer, who holds that position, goes to Breslau to fill a similar post.—*Basle*: Dr. Eugen Bernoulli has been recognised as *privat-docent* of Pharmacology.—*Berlin*: Dr. L. Lesser, professor of dermatology, has been appointed Professor in the Kaiser Wilhelm Post-Graduate Academy; Dr. George Arndt, *privat-docent* of Dermatology, has been granted the title of Professor.—*Breslau*: Dr. Karl Ludloff, surgeon to the orthopædic department of the Surgical Clinic, has been promoted to an Honorary Professorship; Dr. Julius Schmidt, *privat-docent* of medicine, has been granted the title of Professor.—*Budapest*: Dr. Hari, *privat-docent* of medical chemistry, has been appointed Extraordinary Professor.—*Buenos Aires*: Dr. C. Bonorino Udaondo has been appointed Extraordinary Professor of Semeiology.—*Copenhagen*: Dr. V. Schaldemose, Extraordinary Professor of Surgery, has been promoted to Ordinary Professor.—*Florence*: Dr. Francesco Casagli has been recognised as *privat-docent* of Surgical Pathology.

Annotations.

"Ne quid nimis."

THE PROTECTION OF PRECIOUS POSSESSIONS AGAINST FIRE.

ONE by one some of our most interesting national possessions are being lost by fire, and unless measures are taken for the prevention or suppression of fire we may count on losing more. During the past year or two the destruction of several noble historic buildings by fire, together with their contained treasures, has led to a widespread feeling of dismay, and yet no serious or practical attempts appear to be made to prevent these recurring disasters. Every time it is the same story—"there was no water-supply," or "the local fire-engine was not powerful enough to extinguish the flames," or "the only available water-supply was a small pond, which was soon exhausted." Last week the beautiful mansion known as Great Barton Hall, near Bury St. Edmunds, was destroyed by fire early in the morning, and the newspapers have recorded that "the guests (a large house party was being entertained) lent valuable aid in saving famous pictures; but as there was no water-supply the building was burnt out." We commented exactly ten years ago upon the apparent indifference to the results which may follow outbreaks of fire in our historic homes. The occasion then was the destruction by fire of Hanley Castle in Worcestershire, the owner of which, Sir Edmund Lechmere, had lost also by fire a few years previously the ancient mansion "Severn End." This last house, which was one of the oldest in the kingdom, not only contained an interesting museum, but also what we believe was extremely rare, an ancient laboratory, where no doubt bygone members of the distinguished family pondered on alchemical problems, the foundations of which modern research seems to be doing something to rehabilitate. We then asked whether anything could be done to stop this destruction of priceless possessions. We also expressed doubt whether the custodians of country mansions were equal to the task allotted them. We again urge on all placed in a responsible position as owners or guardians of such properties to see that the custodians have both the mental and bodily qualifications as well as goodwill for their important charge. We recommend this matter also to the earnest attention of the British Fire Prevention Committee, which is doing good service by suggesting measures for the prevention of loss of life and property by fire. They would earn the nation's deepest gratitude if they would take up this question of the inadequacy of preventive measures which nearly always proves to exist when our great historic buildings are destroyed by fire. Last week they did well to call attention to the unsatisfactory character of certain portable chemical fire extinguishers. The committee possess records of seven fatalities from certain of these extinguishers bursting, and they pointed out that there is at present an unfortunate tendency to put various types of "cheap-jack" appliances on the market which are not only unreliable but dangerous. We entirely agree with the committee, that the method frequently adopted for selling such wares in our country towns and villages, with the aid of faked demonstration tests, calls for a very decided warning.

THE TUBERCULOSIS CAMPAIGN IN RELATION TO THE EVOLUTION OF SANITARY SCIENCE.

IF the results of the tuberculosis campaign, which has now been initiated in all civilised countries, were limited to the great improvement that is taking place everywhere in relation to the incidence and fatality of that disease alone, the campaign would have amply justified itself. But every specialised advance in science paves the way for a general improvement, and that this is particularly so in this case is made clear in an interesting article by Dr. Hermann M. Biggs and Dr. Charles F. Bolduan,[1] who are drawing their material for argument from American sources. The authors point out that the close student of public health in the United States has for some time seen in the development of this campaign the genesis of a new conception of public health administration and the consequent introduction of new methods of work. Twenty-five years ago, when this campaign was begun in America, the efforts of public health officials were centred in such general problems as pure water supplies and sewage disposal, removal of rubbish, abolition of nuisances, and efforts to abate the spread of the more readily communicable diseases, with some attempt at quarantine and disinfection. The first step towards an enlarged scope was the natural consequence of Koch's discovery of the tubercle bacillus, which pointed the way towards the discovery of the nature of infections and a more accurate knowledge of transmission of infectious disease. With this knowledge coördinated action became possible, and three main lines of effort emerged, tending respectively to the discovery of cases and the study of the problems involved (notification and registration, home visitation, provision of diagnostic facilities, and educational work); special care of the cases found (by institutional and social means; and the securing of the greatest efficiency of the medical and social preventive measures through organisation and coördination of the various agencies. Much the same history holds good, of course, when told in connexion with any of the great civilised states of the world. And in the same way as the extent and manner of distribution of tuberculosis have grown clear those of other diseases are becoming known; the underlying causes of infection are being discovered and dealt with at the source and along their lines of distribution. The recognition of the fact that tuberculosis is not a mere bacterial invasion but rather a symptom of social pathology is now finding its extension towards other diseases; we may give as an example the acknowledgment of venereal disease as a social and not merely a medical problem. The laboratory assistance in diagnosis offered for many years in connexion with tuberculosis is now extended to many other diseases, and will in the near future extend to many more. The importance of helping the diseased sufferer not merely for his own sake but as a measure of self-protection for the community will be more rapidly acknowledged and acted upon by the establishment of various kinds of institutions necessary for isolation, support, domiciliary supervision, and what not. Medical inspection of school children is taking on a vastly wider extension, not simply confining

[1] The Tuberculosis Campaign: its Influence on the Methods of Public Health Work Generally. By Hermann M. Biggs, M.D., and Charles F. Bolduan, M.D. Department of Health of the City of New York Reprint Series, No. 8, August, 1913.

itself to checking the spread of infectious disease, but aiming at the building up of a physically, mentally, and morally more perfect race. During the last 50 years the duration of life in many of the large cities of the world has been extended 25 per cent., and it is patent to everyone that the man of to-day at 60 years of age is quite frequently in the prime of life. Perhaps the modern mental attitude has to do with this. We have ceased to think that our life's work is approaching its term at 60, and so when that age comes we do not notice any great difference between that age and 50, or even 45. Not to recognise the disabilities of age is one important factor in warding them off. We do not mean that a man should ignore limitations to his powers which objective evidence demonstrates to be present, but we are certain that he should not encourage their advent by expecting them as due at a certain period of life.

TROPICAL DISEASE RESEARCH.

Mr. Austen Chamberlain, M.P., is to be heartily congratulated upon having collected £71,000, to which £1000 interest must be added, making in all £72,000, for the fund which he initiated on behalf of the London School of Tropical Medicine. Although this sum falls short by £28,000 of the amount originally asked for, it is a substantial and generous response to the appeal, and as it will provide for the immediate necessities of the school the closing of the fund has naturally followed. From a circular letter to the subscribers we learn that the new buildings have cost £15,000, and that very efficient laboratories and good sleeping accommodation for students have been provided. Towards original research £10,000 have been devoted, this being the amount devised by the late Lord Wandsworth to be used at the discretion of Sir William Bennett, who placed it at the disposal of the school, and £6000 have been invested, the income of which will provide beds for tropical cases. The remainder, a little more than £40,000, has been invested in trustee securities, and the income thereof has been made available for the general purposes of the school. It will be remembered that the appeal for £100,000 was made with the object of providing a modest but adequate endowment fund; to make necessary additions to the laboratories and buildings; to provide for the active prosecution of research; and to furnish a certain number of beds for civilians who could not afford to procure for themselves the special medical and surgical treatment required by patients suffering from tropical diseases. These objects have now been secured, but although the fund has been closed further donations are necessary if the remarkable results which have already attended research in tropical medicine are to be continued. And it is not only in the promotion of health that the achievements in this department of medicine have been so remarkable, but also in commerce and all that concerns the expansion of our Empire. The object should therefore appeal to every member of the community, and especially to commercial men whose interests are widely affected by our knowledge of tropical diseases. The possibility of the introduction of yellow fever into India in consequence of the opening of the Panama Canal is one of the latest problems with which tropical disease research is having to deal, and this is only one of the many that may occur in the future. It is, therefore, of imperative importance that such research should not be hampered by want of money. We confidently hope that, although Mr. Chamberlain's fund on behalf of the London School of Tropical Medicine has been closed, further donations will be forthcoming, and that there will be no check to the progressive advance in our knowledge of those diseases which not only affect the health of the people but also the commercial stability of the Empire.

A SPECIAL DIPLOMA FOR SCHOOL DOCTORS.

THE December issue of the *Journal of State Medicine* contains an article by Mr. J. R. R. Trist on the Medical Inspection of School Children and Medical Education, in which he draws attention to the practice of education authorities in demanding a public health diploma from candidates for appointments in connexion with school inspection. The practice follows logically on the general recognition of school hygiene as a department of public health, but Mr. Trist considers that "the time has come when medical educational authorities may well draw up a course of study and prescribe an examination for a 'diploma in school medicine,' which shall include a part of the curriculum for the D.P.H., and also be such as to give evidence of a knowledge of disease in children." It is certainly desirable that local authorities should pay more regard to a knowledge of children's diseases in candidates for school medical appointments, and if any such examination is instituted as Mr. Trist suggests it should include a section devoted to the medical-social side of the subject. The work of care committees and the coöperation of doctors with many and varied social organisations which have to do with child welfare form an increasingly important part of a school medical department. To lack the power of coöperation and the knowledge of organisation necessary for this work is to fail partially in getting good results from medical inspection. Mr. Trist mentions as special departments of knowledge in which a medical inspector should be expert, or at least have a thoroughly good understanding, dermatology, ophthalmology, otology, neurology, and orthopædics. While agreeing in the main with this statement, it is necessary to add that this knowledge must be tested and brought into the perspective of school inspection by attendance at a school clinic. The ordinary hospital out-patient clinic gives quite a false impression of the relative importance, from the school point of view, of various ailments and "defects." There is also another department of knowledge in which the school doctor should be well equipped, and that concerns the feeding of children. Probably in no other department of practice is the medical profession so badly equipped as in the department of dietetics. Laboratory physiology is of very little practical use, and the grave contradictions found between different "authorities" on diet point unmistakably to the conclusion that our present knowledge is of very little worth. And among large classes of the population the question of clothing is of hardly less importance than that of feeding. To suggest that the school doctor should not only be expert in various special departments, but also the possessor of social tact and be something of a cook and a tailor, is in truth only to suggest that he should enter fully into

the spirit of his duties. The school doctor cannot rest content until there is a permanent improvement in the health of the child population of the country, and everything which appertains to that is within his province. And to help toward the better equipment of the school doctor it seems probable that something on the lines of Mr. Trist's suggestion will have to be considered, but to be valuable the examination should cover everything within the sphere of influence of the medical inspector of schools.

ARTERIO-VENOUS ANEURYSM OF THE SUPERFICIAL FEMORAL VESSELS.

THE discovery at necropsy of lesions which had given little or no trouble during life has proved a corrective to the spirit of gloomy prognosis which is apt to dominate those who, as in the case of hospital physicians and surgeons, spend a large part of their lives in the contemplation of mortal disease. Malignant growths that have been known to exist without giving rise to trouble for many years, in patients who eventually die from something else, impress upon the mind of the clinician the same golden lesson that there is no such thing as a hopeless outlook. In the *Journal of the American Medical Association* for Dec. 13th of last year there is an account of a case of arterio-venous aneurysm, the most noteworthy features of which were the extent of the lesions, their long duration, and the unimportance of the symptoms to which they gave rise. The patient, a medical man aged 63, was admitted to St. Luke's Hospital, New York, with symptoms of cardiac breakdown which proved fatal in a week. In addition to the symptoms and signs proper to the cardiac disease there was a tumour in the left groin, of the size of a hen's egg, exhibiting expansive pulsation, over which a continuous bruit with a systolic emphasis could be heard. It was said that 18 years previously he had been wounded in the thigh by a small-bore rifle bullet, but that since that date he had travelled much in South America and spent a good deal of his time in the saddle. As Dr. A. B. Eisenberg, who reports the case, remarks, this strenuous life could not have been borne had the patient suffered much from the aneurysm. At the necropsy it was found that the bullet must have perforated the superficial femoral artery and vein about two and a half inches distal to the origin of the profunda femoris artery; both vessels had been completely traversed, and the points of entrance and exit lay exactly opposite each other. The adjacent portions of artery and vein had been incorporated with each other, the corresponding perforations persisting in the form of a communication about a third of an inch in diameter. The other hole in the artery established a channel between the vessel and a small, thick-walled aneurysmal sac. There was probably a corresponding venous sac; but this part of the specimen was damaged in the process of removal, and could not be accurately observed. Both artery and vein were thickened and dilated for a short distance below the communication, and markedly so above it; constricted by their passage beneath Poupart's ligament, they were dilated again above it, and so much contorted that this portion of both vessels was more than double the normal length. Just above Poupart's ligament the vein dilated suddenly to form a thin-walled sac, nearly three inches in length, and about two and a half inches in diameter. In spite of these extensive lesions which, as Dr. Eisenberg expresses it, crowded the pelvis, there had been no urinary or rectal symptoms, though both ureters were moderately dilated.

NEUROTIC RAILWAY WORKERS.

THE report of Major Pringle, the Board of Trade inspector, on the collision which occurred at Waterloo Junction Station on Oct. 25th, 1913, and was attended with serious loss of life, attributes the accident to faulty judgment and lack of caution on the part of one of the signalmen. This finding, taken in conjunction with the results of inquiry in some other accidents of recent date, will strengthen the view that in the interest of public safety there is need of a somewhat more complete and more stringent medical supervision of railway employees than exists at present. Defects of colour perception are recognised as a disqualification for the railway service, and tests, if not wholly satisfactory ones, are regularly applied for their detection; but, as this accident shows, a defect in inhibitory power or a weakness of attention may be a disability quite as serious in its consequences as the failure to distinguish the sensations of red and green. It is, doubtless, quite true that the qualities found wanting in the Waterloo signalman are not susceptible of very exact measurement even by the most elaborate methods of psychological examination, but these methods might at all events furnish the data for a rough estimate of the nervous aptitudes of a given individual, from which his fitness or unfitness for certain sorts of work could be inferred with some degree of probability. And investigation by such methods might also throw light on the influence which the conditions of his occupation exercise on the railway worker's efficiency. The practical importance that may possibly attach to this latter point is shown by the reference in the inspector's report to the suggestion, which he seems to admit in a qualified way, that the sameness and routine character of the work in a busy signal box tend to deaden the capacity for thoughtfulness, and may thus help to bring about such rash and hasty action as was responsible for the Waterloo accident.

THE FUNCTIONS OF THE NOSE.

IT is generally agreed that the functions of the nose are connected with the sense of smell, respiration, taste, and phonation; but this view has been challenged by Dr. Owen F. Paget, medical officer of health of Fremantle, Western Australia, who wishes to prove that the most important function of the nose is to filter the inspired air, and that all other uses to which it may be put are merely subsidiary to this. He holds that nearly every healthy man has lost the power to breathe through the nose, and he explains this by the fact that in inspiration the sides of the nose collapse and the passage is blocked, and this occurs quite apart from any abnormality such as deviation of the septum. This collapse he ascribes to a loss of power of the nasal muscles from disuse, for he believes that all the muscles of the nose except the depressor alæ nasi act as dilators of the nostril. If by one means or another respiration even when hurried could be completely nasal, he believes that pneumokoniosis and allied disorders would be abolished, and that there would be an enormous diminution in pulmonary tuberculosis, pneumonia, and influenza.

We regret that the exigencies of space prevent our presenting Dr. Paget's views in full, but we have given above a brief summary of them. His suggestion is interesting, and will no doubt receive attention.

THE IMPERIAL BACTERIOLOGICAL LABORATORY OF INDIA.

MANY of our readers are probably acquainted with the important work carried on by the Pasteur Institute at Kasauli, in the Punjab; but perhaps it is not generally known that another centre of research work in the Indian Hills is in active operation at Muktesar, near Naini Tal, in the United Provinces. This was originally started by Dr. Alfred Lingard in 1893. In 1908 Dr. Lingard retired, and was succeeded by Major J. D. E. Holmes, C.I.E., M.R.C.V.S., who has a staff of an assistant bacteriologist, a physiological chemist, three European laboratory assistants, and numerous native assistants and veterinary inspectors. Muktesar stands on top of a hill, at an elevation of about 7500 feet, the estate comprising 7000 acres, half of which is forest. Besides the main laboratory buildings there are three separate laboratories for anthrax, *charbon symptomatique*, and mallein preparation, together with a sterilising house, cold storage, power house, stables, cattle sheds, and dog kennels, &c. The duties of the Imperial bacteriologist, when first appointed in 1890, were thus defined: "To investigate diseases of domesticated animals in all provinces of India, and to ascertain as far as possible, by biological research both in the laboratory and when necessary at the place of outbreak, the means for preventing and curing such diseases." Year by year investigations have been carried out on surra as affecting horses, camels, and dogs; rinderpest, affecting cattle and buffaloes, epizoötic lymphangitis, dourine, anthrax, hæmorrhagic septicæmia, and *bursati*. The results have been published, either separately by the Indian Government, or as contributions to the *Journal of Tropical Veterinary Science*, or elsewhere. The economic importance of such a research institute is becoming increasingly recognised. The study of the diseases, until recently obscure, of horses and cattle, due to trypanosomes (surra and dourine), epizoötic lymphangitis (first diagnosed and described in India by Dr. Lingard), rinderpest, piroplasmosis, &c., has been carried out thoroughly with all the appliances of modern scientific research. No doubt a considerable sum of money has been expended on the erection and maintenance of this institute, but the value of the results is already acknowledged, and year by year will become more appreciated. In India rinderpest is the most prevalent and destructive disease of stock; in this, as in other epizoötics, the operations of the Government Veterinary Department are directed to the suppression of the outbreaks as they occur, the treatment and protection of individuals being of less consideration, and total eradication not being even attempted, as it is practically out of the question. Next to rinderpest hæmorrhagic septicæmia accounts for the largest losses among cattle. For glanders, surra, epizoötic lymphangitis, and dourine there exist legislative measures of control. For rinderpest the use of serum is accepted without opposition in most parts of the country on account of the great benefits which have resulted during the last ten years, and which are freely acknowledged. A successful method of curing surra was discovered at the laboratory in 1908; atoxyl and arsenic are used, and 75 per cent. of the horses and mules treated have recovered. Dogs have been cured by salvarsan. The above is a very slight sketch of the work carried out by the Muktesar laboratory, the existence of which is a proof of the appreciation of modern scientific methods by the Government of India. The great value of its prophylactic work is probably at present understood and appreciated by comparatively few, but the time will come when it will be fully acknowledged. The practical difficulties in establishing laboratories and carrying through delicate bacteriological work and microscopic research in the Himalayas must have been considerable, and great credit is due to Dr. Lingard and his successors for the valuable results that have been obtained.

DISEASES OF NATIVES IN NEW GUINEA.

WHY do uncivilised nations die out? This question is being answered in the German colonies by careful statistical investigations, of which the latest to come under our notice was made by Dr. Karl Kopp in New Pomerania,[1] German New Guinea. He found the people well fed, the children in good condition, but the adults spare and the aged thin. There were plenty of children, and he gives a table showing the proportions which children under 15 bear to the general population: in New Pomerania, 614 out of 1000, but the men seem to emigrate in search of work and would not be enumerated, so the child ratio is too high; in Austria, 563; Germany, 534; England, 529; and France, 353. There are more men (who are generally idle) than women (who do nearly all the work). The most frequent causes of mortality and of disabling constitutional weakness are first and chiefly "the scourge of the South Seas"—ankylostomiasis; 62 per cent. of children in the schools were found infected. The only children who harboured no intestinal parasites all wore boots, the infected all went barefoot. He says with great truth that many a planter who groans over the weakness and idleness of his coolies would much better spend his time contriving for them a safe water-supply and decent latrines so they could do their work. Malaria and filariasis, mosquito-borne diseases, come next. They each do much harm by setting up an anæmia which depraves the man's working power and makes him an easy victim to the next infection that comes along. Tuberculosis is not endemic yet; it has been communicated by strangers, and hence it is the men, who more often meet them, who are most infected; women and children escape more lightly, and the disease has barely reached the natives who live far in the wilds. It is observed that the disease spreads more rapidly in a village well protected from the wind and with its houses therefore less well ventilated. This is interesting in connexion with what Dr. William Gordon has found in Devonshire, where villages appeared to be susceptible in proportion to their exposure to the south-west wind.[2] Cases of yaws also are frequent in New Guinea, and a gingivitis which may be scurvy. Syphilis also has been imported; as Dr. Kopp remarks, it is a Greek gift from civilised visitors; also dysentery occurs frequently. The chief of their unhealthy customs are smoking, which

[1] Archiv für Schiffs- und Tropen-Hygiene, November, 1913, p. 729.
[2] THE LANCET, June 14th, 1913, p. 1645.

is continual and has been seen to be practised even by sucklings, chewing betel nut, and careless, unregulated depositing of fæces. His hope for the future is with the Government labourers and recruits, who shall find so good sanitary arrangements in barracks that they will be unable to live without them in their homes on their return.

EARLY DAYS OF CHLOROFORM.

THE death, at the age of 83, of a niece of Sir James Simpson, which occurred last week at Streatham, brings to mind the early days of anæsthetics. We have grown so accustomed to their use, and alterations and advances in the practice of anæsthesia follow so rapidly one upon another, that we easily lose sight of the fact that it is really only a short time since the first anæsthetics were introduced. Mrs. Agnes Thomson was, so far as we know, the first woman to inhale chloroform, which she did experimentally at Simpson's house in Queen-street, Edinburgh, where he and his assistants were investigating the newly discovered drug. Miss Petrie, as she then was, after witnessing the effects of chloroform on Simpson and some of his assistants, volunteered to try it, and apparently she enjoyed the inhalation, for she repeated it on more than one occasion. No doubt what we now regard as surgical anæsthesia was never attained, and the pleasant sensations she experienced are often paralleled at the present time by those who are subjected only to short periods of administration and to no deep degree of narcosis. Chloroform, we may remind our readers, was no haphazard discovery, but was the direct result of Simpson's desire to find an anæsthetic less irritating than ether, which had been already introduced and was used by Simpson early in 1847. It was in November of the same year that he read his "notice of a new anæsthetic agent as a substitute for ether in surgery and midwifery," in consequence of which chloroform rapidly supplemented ether, until the greater danger of the former drug became apparent. There is an interesting picture of these early chloroform experiments of Simpson, which partook almost of a domestic nature, and of those taking part in them, in Lady Priestley's "Story of a Lifetime." Her husband, the late Sir William Priestley, was one of the many young Edinburgh medical men who were infected with the enthusiasm and joyous spirit of investigation which animated their great teacher.

FATAL HÆMATEMESIS DUE TO ANGIOMA OF THE PORTAL VEIN.

IN the *Berliner Klinische Wochenschrift* for Dec. 1st, 1913, Dr. Hart has reported a case which throws light on the origin of one form of gastric hæmorrhage. His patient was a governess, aged 20, who had previously been well. In March, 1913, an attack of violent hæmatemesis was followed by collapse. After five days, during which the hæmatemesis continued, the patient died. The necropsy showed dilatation of the veins of the œsophagus and the stomach, and a ruptured varicose vein in the latter. The spleen was much enlarged and surrounded by adhesions. There was no sign of a normal portal vein, the place of which was taken by a spongy structure consisting of innumerable minute blood-vessels. This was evidently the point at which obstruction to the circulation of the abdominal veins had induced enlargement of the spleen and dilatation of the gastric veins. As there was not even a fibrous cord in place of the portal vein, this cannot at any time have existed, and the angioma must be regarded as a congenital anomaly. It is astonishing how such a condition could have lasted for 20 years before the congested veins gave way. The liver contained gummata, and at first sight the angioma would seem to be dependent on congenital syphilitic disease of the liver; but Dr. Hart thinks, in view of the patient's history, that the syphilis was acquired, and had nothing to do with the angioma. Of late years a few cases have been recorded in which the portal vein was replaced by cavernous tissue. Sometimes this has been limited to the portal vein, and at other times it has extended to the splenic vein and to the intrahepatic branches of the portal vein. It is practically impossible during life to distinguish this condition from cirrhosis of the liver, Banti's disease, and polycythæmia. The condition may be fatal as a result of late thrombosis of the branches of the portal vein with infarct of the corresponding portions of the intestine, or as a result of hæmorrhage from an œsophageal or gastric vein. The condition does not necessarily affect the liver, and its origin is still in dispute. Some authorities regard the angioma as a sequel to thrombosis of the portal vein, followed by recanalisation and the formation of capillary, collateral blood-vessels. Others consider that an angiomatous tumour has grown from the wall of the portal vein, which has ultimately become obstructed. Others, again, regard the condition as a congenital malformation. It has probably been overlooked more than once at necropsies, and thus the cause of a fatal gastro-intestinal hæmorrhage has not been discovered.

THE POLICE PATIENTS IN METROPOLITAN HOSPITALS.

THE metropolitan police force now numbers 22,000 men, and they form a picked body, for only about 25 per cent. of the candidates are accepted. The last published report of the Chief Surgeon of the Metropolitan Police, that for the year 1912, shows the general health of the force to be good, but reveals also how their arduous duties entail a corresponding sickness rate, whilst the number of police injured in the course of their routine work is very large. For instance, in 1912 3075 policemen were injured in the execution of their duty, over 2500 having been assaulted when making arrests, of whom 329 were placed on the sick list for more than one week. 369 patients during the same year were admitted into general hospitals, 33 into cottage hospitals, and 172 into special hospitals, making a total of 574, 22 of whom died. The figures show that the hospitals of the metropolis minister in an important manner to the health and well-being of the police force over a huge area. We have just received with particular pleasure a communication from the Office of the Commissioner of Police stating that it is proposed to alter the basis on which subscriptions are paid to the metropolitan hospitals from the Police Funds in return for the ministrations rendered to police in-patients. Hitherto certain subscriptions have been paid by Scotland Yard to different hospitals in a completely arbitrary way, so that it might easily happen that one charity, receiving a small subscription, would be affording treatment to 40 or 50 police in-patients during the year, while another,

receiving a larger subscription, might during the same year shelter only one or two policemen in the wards. Under the new arrangement, which has been made at the instance of Sir Edward Henry, the Commissioner of Police, and with the approval of Mr. McKenna, the Home Secretary, the subscriptions from the Police Funds, while remaining as at present on a voluntary basis, will be approximately equal to a sum of 1 guinea per week on account of every police in-patient admitted to the hospital during the year. Further, from any officer above the rank of inspector who may be received in one of the hospitals an additional contribution will be expected, and the Commissioner of Police invites the management of the various hospitals to communicate with him when such a case arises, so that the suitable provision may be made. We know that this valuable change in the method of dealing with police in-patients in the metropolitan hospitals has long been desired by Sir Edward Henry, as an obvious way of making a more equitable recognition of the services rendered by the hospitals to the police, and we are certain that the new arrangement will be acceptable to the governing boards of the respective institutions concerned. A far larger sum of money will now be paid to the hospitals in recognition of the medical and surgical treatment received by police in-patients, and that sum will go in the different directions where it has been earned. We heartily congratulate Sir Edward Henry on carrying through a valuable piece of administrative reform.

AT the next meeting of the Royal Microscopical Society at 20, Hanover-square, London, W., on Wednesday, Jan. 21st, at 8 o'clock, Professor G. Sims Woodhead will deliver his Presidential address on "The Microscope and Medicine."

SIR JAMES PAGET'S CENTENARY.—In our last issue the vicar of Great Yarmouth announced that the centenary of the birth of Sir James Paget would be commemorated at Yarmouth parish church on Sunday, Jan. 11th. Sir James Paget was born at Yarmouth on Jan. 11th, 1814, and his family was closely connected with the district and its parish church. An impressive service was accordingly held, at which the sermon was preached by the Bishop of Stepney, third son of Sir James Paget. The mayor and corporation of the borough attended, and representatives were present from St. Bartholomew's Hospital, from the University of Cambridge (in which Sir James Paget's brother, Sir George Paget, was professor of medicine), and from various medical societies. After the service the mayor received on behalf of the corporation from the Bishop of Stepney and Mr. Stephen Paget certain pieces of plate and other souvenirs which had been presented to their father by the citizens of his native town.

A JOURNAL OF PHONETICS.—The birth of a new journal devoted to any department of medicine is necessarily one of interest. The journal which is now attracting our attention is termed the *Archiv für Experimentelle und Klinische Phonetik*, and is edited by Professor J. Katzenstein. In this first number Dr. Otto Weis deals with the formation of the vocal—this word should be used in the same way as it would be employed by the singers—and there are several photographs of curves of sounds produced in various ways and in various parts of the vocal apparatus. There is a contribution to the Physiological Study of Phonetics, by Wulfgang Kühler, and a long, fully illustrated article on the Measuring of the Volume of Air in Speaking and Singing, by the editor of the *Archiv* and R. du Bois Reymond. The articles of this first number mentioned will give some idea of the scope of the journal, and one feels sorry that there is not a journal devoted to this subject in the English language, though we expect it would be extremely difficult to produce one of equal merit.

THE

RATIONAL TREATMENT OF INCIPIENT INSANITY AND THE URGENT NEED FOR LEGISLATION.[1]

BY ROBERT ARMSTRONG-JONES, M.D. LOND., F.R.C.P. LOND.,

RESIDENT PHYSICIAN, LONDON COUNTY COUNCIL ASYLUM, CLAYBURY AND LECTURER ON MENTAL DISEASES TO ST. BARTHOLOMEW'S HOSPITAL; FORMERLY EXAMINER IN MENTAL DISEASES, UNIVERSITY OF LONDON.

THE victims of insanity in its many forms claim the protection and the care of the two sections of which the Medico-Legal Society is constituted. They come under the care of the medical man for their mental and physical condition, and they need the supervision and help of the lawyer for the custody of their property and for the safeguarding of their liberty. In consequence of this dual control the term insanity probably has for members of the society two different meanings. To the medical section insanity is a disease which brings about (sometimes suddenly, but more often gradually) a change in conduct of such a kind that actions or speech indicate a loss of self-control and self-direction. As a result of this change in conduct the community in which the sufferer lives demands for his own safety and that of others that he should be placed under circumstances in which he may best regain his lost balance. To the legal section an insane person is one who has become recognised as such through the filling up and signing of certain forms and schedules in accordance with the provisions of an Act of Parliament, so that insanity in this sense is a transition from one territory or province into another, the line of demarcation being a legal one. The transition takes no notice of the condition necessitating the change, only of the delimiting frontier, which is certification. On one side of this frontier there is one law for him, on the other there is another; and it is the disqualifying condition which accompanies this certification that constitutes the basis of this paper.

The Stigma attaching to Insanity.

One of the chief functions of the Medico-Legal Society is to formulate and discuss schemes of legislation relating to important medical matters, and the insane subject needs legal support because an obloquy, a shame, and a disgrace attach in the public mind, and most unjustifiably, to insanity, to insane persons, and even to the places wherein these are now treated and cared for. Whilst recovering from this terrible disability no convalescent home will receive them, no family welcomes them, and even relatives and friends are suspicious and timid in regard to them. Their own children often shun them, and even when restored to their former health, as I am happy to say is very frequently the case when they come under treatment early, there is a difficulty in reinstating them in their former places owing to the prejudice which exists so widely. It is the duty of those who are acquainted with this sad affliction and who know the sufferers best to help them against the antipathy and to try to alter the public feeling which now prevails against them.

[1] Paper read to open a discussion at the Medico-Legal Society, under the chairmanship of Earl Russell, on Nov. 25th, 1913, at which Dr. Sidney Coupland and Mr. A. H. Trevor (Commissioners in Lunacy), Sir G. H. Savage, Dr. Helen Boyle, and Dr. Nathan Raw took part, and to which Sir T. S. Clouston and Dr. A. R. Urquhart sent contributions. The discussion has been postponed to Jan. 20th at 11, Chandos-street, W., at 8.30 o'clock. Dr. Henry Maudsley was present.

Of all disabling illnesses insanity is the most formidable, as it is also the most expensive, and the most difficult to deal with, yet if treated in its early stage it is most successful in results, which fact is of immense importance to the community, both from the point of view of prevention as well as of finance, for which reasons cases of insanity should receive prompt attention at the very outset.

Incipient Cases.

There are in round numbers 140,000 insane persons in England and Wales, and the cry is that these numbers are increasing. In addition to those who are insane there is possibly an equal number on the borderland. Many parents sacrifice themselves in order to give good schooling to their children and to equip their boys and girls for the battle of life, the gates of progress to-day being forced only by those especially prepared for the fray. Yet education has its victims, the physical side of children being often sacrificed to the mental, both parents and teachers forgetting that the secret of successful competition is first of all to have a healthy muscular and nervous system. The "speeding up" which is now universal has to start from below, time is precious and work has to be done at a white heat, and there is urgent need for a reliable physical health, for the neurasthenic class has never been more numerous than it is to-day, and it has become the fashion to run "homes" for all sorts of nervous breakdowns, as the friends of the early insane know already to their cost. If it were only more widely known how incipient insanity may be controlled and quickly relieved there would be a national effort to provide means for treatment and early advice. Yet what is being done to-day to prevent these cases becoming incurable and to keep down the numbers of the certifiable insane? It is but little known how many there are, especially among the poorer classes, who are struggling hard against tremendous odds to keep their ill ones out of the lunatic asylum and out of the workhouse infirmary as well. Few know the efforts made by the deserving poor to fight against a "damnable heredity," and it has been well said that the value of a life should be measured not by success but by effort.

The Legal Position.

The munificent gift of Dr. Henry Maudsley to the London County Council—viz., the Mental Hospital, which is to be called after his name in South London, is destined to be the finest clinic in the world, but before it can be of full use there must be a change in the law of lunacy. So far as England and Wales are concerned there is to-day in lunacy one law for the rich and another for the poor. But even a rich person who is suffering from insanity cannot be looked after upon payment even by his own father, mother, brother, sister, or any relative or friend except at the penalty of a fine, or being summoned in an action for misdemeanour. Further, no person suffering from insanity can be kept or maintained for payment unless that person is certified and registered as a certified lunatic. A person who is restless from loss of sleep and delirious with excitement cannot be looked after in any home or hospital except at the risk of an action being brought against his custodian for maintaining a person who should have been certified. But what does the certificate imply? It carries with it the stigma and the reproach—unjust as they are—of insanity, and once certified the reproach remains, not only in regard to himself, but also to his family and his relations. To my knowledge many men have lost their situations in the service of the Crown, in the employ of public companies, and frequently in private service, owing to the stigma of insanity which certification implies. Many humble persons have been deprived of their livelihoods and have been actually prevented from recovering because they realised the portent of the certificate of insanity.

Causal Factors in Insanity.

Whilst it is customary to blame alcoholic excess for most of occurring insanity, nevertheless insanity is a condition with many antecedents and innumerable causal factors; unhealthy surroundings, the want of fresh air and sunshine, long years of strain and worry, noise, sleeplessness, and bad food are frequent etiological factors, which show that the person afflicted is not to be blamed for his own illness. Insanity is a gradual rather than a rapid change. A case illustrating physical causation is given, if I remember rightly, by Dr. Lewis C. Bruce; another on the mental side by Dr. Helen Boyle. The physical factor is illustrated by a mother who gives birth to a child; her confinement is associated with a slight fissure of the cervix uteri; over this fissure runs a discharge from the uterus which inoculates the wound with streptococcic or staphylococcic infection. After months, possibly years, of continuous infection her health at last gives way and she becomes a complete mental wreck, which proper treatment of the fissure at the start would have prevented.

On the mental side the example is that of a needy home and a poor mother with a large and young family. She stays up at night nursing her sick child in an overcrowded room—often with bad air and worse food, with noise and worry. Later she becomes sleepless, loses her appetite, her general health fails, and she is threatened with a mental breakdown, possibly complicated also with tuberculous infection. She knows she is going down hill, she becomes melancholy, and develops delusions. She feels unable to cope with the calls of home or with the needs of her husband and children; she is no longer able to do the mending, darning, washing, cleaning, and cooking expected of her, and she seeks medical help and advice. She waits for hours at the out-patient department of a general hospital and gets a bottle of medicine, with the advice not to worry, but to go home and rest. She is told she cannot be taken into the hospital because she has no definite organic disease, and she is not eligible for the asylum because she has not been certified. Even if she were, she would have to go into the workhouse first, which she dreads. She fears still more the stigma of the lunatic asylum, which will not only stamp her as an outcast among her family, but will also cast a permanent blemish upon her children.

Cases Needing Special Treatment.

These are the kinds of cases that need special treatment to save them from the stigma of insanity, and there are many more besides. There are those who suffer from the delirium of bodily illness such as may accompany an attack of pneumonia or pleurisy, or some of the acute fevers—more commonly perhaps typhoid and scarlet fever, many who suffer from the temporary delirium of puerperal toxæmia, some who suffer from renal uræmia, and scores of people who have "drunk not wisely but too well."

I have seen many instances of teachers,

governesses, maids, of poor clerks and working men among these cases, who, if they had been able to receive treatment in a general hospital, or some special place intermediate between the hospital and the lunatic asylum, would never have been certified as insane, and would not in consequence be deprived of their livelihood; nor would their relatives and dependents have been further debased by the additional stigma of pauperism. Picture, for instance, a young mother, after her first confinement, finding she has been from three to six weeks in the county asylum as a pauper lunatic—and there are scores of such cases. In her case each successive pregnancy is a nightmare to her, and, in the opinion of some, her own distress will have brought its bad effects upon the children born later. Other cases occur in which persons of a highly strung or nervous temperament have suffered from accident or shock, and as a result have become deliriously restless and excited. Without their knowledge or the consent of their friends they have been certified as insane and removed to the nearest lunatic asylum, and their future careers thereby absolutely destroyed. Many cases suffering from the effects of alcohol have, in consequence of mental symptoms lasting some days, been removed to the Poor-law infirmary; and here, it is satisfactory to know, efforts have been made to save many of them from the reproach of lunacy by detaining them until the mental symptom had passed away, and in some of the larger towns a successful effort has been made to treat these cases in the Poor-law infirmary wards, where nearly 50 per cent. of them have recovered completely within the statutory period of 31 days' detention. By this treatment their future position at least has been protected, and there has also been a saving to the public purse by delayed certification. It is cruel that these rescuable cases and their families and relatives should not get a chance of being saved the reproach of a painful as well as of a permanent stigma. For humanitarian reasons, apart from financial considerations, and for reasons which tend to affect the self-respect and the position of the family, it is right that these persons should have a chance to escape from the censure of being branded with lunacy, if this be possible, and we know that it is. It is hard enough for healthy men to compete with the world, how much more so those who are sensitive and refined, and who through no fault of their own have been compelled to yield in the unequal strife and struggle.

Institutions for Incipient Cases.

As the law now stands the rich man can be placed as a voluntary boarder in a licensed house or a mental hospital if he should feel a mental breakdown impending, and why, if this is satisfactory and possible for the well-to-do, should it be withheld from the poor? The rich patient may also enter a private house to be treated singly, but the poor have to be herded together, and in addition have to pass through the workhouse or Poor-law infirmary and be further censured for their illness as paupers. I do not wish to say anything against the treatment in Poor-law infirmaries. It is as devoted and as able in many of these infirmaries as it is in most of our general voluntary hospitals. But association with Poor-law relief is a stigma.

Although I have stated that the insane rich may enter private houses or homes, these homes are not by any means what they might be. We know there are scores of so-called "retreats" or nursing homes ostensibly for cases of this kind described euphemistically as "nervous" cases, but the cases are looked after often by persons who know little or nothing of the conditions of incipient insanity. I have recently seen a man who spent practically the whole of his savings in residence at a nursing home, in which his mental disorder continued to develop and where much valuable time was lost in "curing his nerves" with galvanism and what was described as the "rest cure."

All who practise in my department of medicine know of these nursing homes, and there is, through the fear of the stigma of insanity, a tendency on the part of the relatives and friends to avoid asylums and to make use of them. A great deal of trouble is also often experienced in dissuading the friends from placing mental cases in them. There are many doctors in practice who, although themselves acquainted with the different types of insanity in their fully developed forms, yet do not recognise the early symptoms, and they often suggest, under a misapprehension, that patients in the early stages of insanity should enter these so-called "homes," where they receive no benefit. I believe there are some consulting physicians who also recommend these homes for the early stages of insanity, which shows the urgent necessity there is for some intermediate place and for an immediate change in the law. The Lunacy Commissioners are compelled to see that the law is carried out in regard to the treatment of the insane, yet they are loth to take steps to prosecute those who may be acting in the supposed interests of their patients. The line between sanity and insanity is so fine and the neutral territory between the two is so indistinct and ill defined that cases of confirmed insanity remaining uncertified certainly do exist, and in greater numbers than is generally believed. We know that cases of scandal, of suicide, and of coroners' inquests do occur, and the wonder is they are not more numerous. If I may be permitted to say so, this is a compliment to the manner in which the high lunacy officials perform their difficult and delicate duty—viz., the safeguarding of the interests of the insane. Some of these cases are undoubtedly difficult to treat, and those presenting dangerous delusions, those with homicidal or suicidal tendencies, should receive asylum care from the start, but there should be a possibility of keeping others of them under care for a time, at any rate, until a correct diagnosis of the case has been made, and to avoid abuse the patients kept during this probationary period should be carefully inspected, and the "house" or "home" recognised or registered for official supervision either by the Lunacy Commissioners or by such an authority as the London County Council in London, who now propose to register places for massage, rest cures, and "lying in."

It is firmly believed that the feeling of not having to go into an asylum would diminish the unwillingness there is now on the part of mental cases to seek early relief. It is known that when early relief is sought the duration of the illness is also shortened.

Results of Early Treatment in England and Scotland.

Let us consider what has already been attempted in this direction. In 1908 an effort was made to establish mental wards in the Edinburgh Royal Infirmary for the reception and treatment of early mental cases, but financial difficulties compelled its

relinquishment, or at any rate its postponement. In Glasgow the Poor-law authorities, under the advice and direction of Mr. John Carswell, have provided separate wards in their sick infirmary for the treatment of early mental cases. He reported, in 1904, that 1027 mental cases were placed in the infirmary under his care, of whom 583, or 56 per cent., were sent to the asylum, but 502 were treated in the infirmary, and 213, or 42 per cent., recovered within six weeks, and I understand that the authorities in Glasgow are so satisfied with the advantages to the patient as well as the financial gain to the public purse by this "early" treatment that they are now erecting a separate hospital which will be more suitable for their needs. In the Dundee General Infirmary there is an effort being made at the present time to set apart a ward for mental cases. Dr. J. M. Whyte recently visited the Claybury Asylum for the purpose of obtaining special information as to the treatment employed there for early cases with the view of arranging for the same in Dundee. It must be stated that the treatment of early cases is easier in Scotland than in England, because of the special clause in the Scottish lunacy laws which permits of the special treatment of incipient insanity for a period of not over six months before certification, and this merely upon the declaration of a medical man that such treatment is desirable in the interests of the patient. Dr. Helen Boyle, formerly my colleague on the staff of the Claybury Asylum, has established a mental hospital for 30 beds in Brighton which has proved an unqualified success for early cases of mental breakdown.

In London we have out-patient departments for mental cases at several of our general hospitals, and this is also the case at some of our county asylums, and we know there are many who seek help there and who are taught to realise that the sooner they come under treatment the better, and the more rapid will be their chances of recovery. In London also (particularly under Dr. F. S. Toogood, of the Lewisham Infirmary) and in Liverpool (under Dr. Nathan Raw) early cases of lunancy have, as already stated, been treated under the Poor-law, and with most satisfactory results. The Lunacy Act permits the relieving officer to detain a patient for three days; the magistrate may also detain a patient for the same period, and in addition may make a detention order for 14 days, and this again may be extended for another 14 days, making a total magisterial detention of 28 or 31 days. Dr. Toogood, in the year 1905, gave the statistics of his own experience at Lewisham for the three previous years, as also those for the whole of London under the Poor-law. The figures gave a total of 23,734 mental cases, of whom 11,428 were sent to the asylums, whilst 10,158 were sent out recovered within the period referred to above, a proportion of recoveries upon the admissions of over 42 per cent. Dr. Raw also presented statistics for eight years from his own experience, showing that 6200 mental cases had been received into the Poor-law Infirmary in Liverpool over which he had charge, representing an annual admission of nearly 800 persons into wards containing accommodation for only 150 beds. Of this total 2580, a proportion of 42 per cent., were sent out recovered within a period of 20 days, which corresponded almost exactly with the numbers quoted by Dr. Toogood.

Steps Taken in the Colonies and Other Countries.

The State of Ontario has recently enacted that all cases of mental disease that are likely to be benefited by early treatment in a hospital for the insane should be admitted with the least possible delay, and that pending their reception they "should not be taken into a gaol, lock-up, prison, or reformatory, but direct into the custody of someone who will care for them"—i.e., I presume into a general hospital, and this on the certificate of two physicians. It is further enacted that, in order to continue his interest in the case, the family physician should be permitted to consider himself an honorary member of the visiting staff of the mental hospital into which his patient is sent. At the Albany General Hospital, in the State of New York, there is also a mental department, and much advantage results from this joint arrangement of a mental section in a general hospital. Students and post-graduates attend the clinical observations of these cases, which are further elucidated by laboratory research. By this association of scientific methods and the spirit of research the treatment of mental cases receives a fresh impetus, there is help to the individuals afflicted as well as to the community which pays for them by a shortening of the period of disability, and the treatment of insanity becomes—as it should—the treatment of a bodily disorder, and not of a mysterious entity which needs exorcising and correcting.

Victoria and New South Wales (the former under the enlightened direction of its Lunacy Commissioner, my friend Dr. Ernest Jones) have established special reception houses for the study of early cases of insanity, whence cases which do not rapidly respond to treatment are distributed later into the local asylums. In Berlin, Munich, Göttingen, Dresden, Vienna, and other places, there are institutions for the early treatment of mental cases. In Paris all the mental cases pass through the large central asylum—the Ste Anne—before they are distributed to the other asylums.

Need of Changes in the Lunacy Laws.

This is no new subject for discussion in London. The work which Mr. H. F. Keene and his staff have done for the asylums committee of the London County Council is well known. In 1903 the Lunacy Acts Amendment Bill for London, enabling the London County Council to establish receiving houses for mental patients, was presented to Parliament by Lord Carrington. A subsequent Bill was introduced in 1905 by Sir John Batty Tuke, Mr. John Burns, and Sir (then Mr.) John Benn. So far back as 1896 Mr. Henry Rayner advocated the early treatment of insanity. Dr. Outterson Wood, in 1903, urged the importance of this matter, and a joint committee of the Medico-Psychological and British Medical Associations presented a deputation to the Lord Chancellor, Halsbury, who inserted a clause in his proposed Bill to meet these views. This Bill was unfortunately withdrawn, but a similar clause appeared in the then Attorney-General's Bill in 1905. Since then—"*autres temps, autres mœurs.*"

In view of the munificence of Dr. Henry Maudsley and the probable opening in 1914 of the new Mental Hospital, it is most urgent that we should have some changes in the Lunacy Laws if this new hospital is to become the leading mental clinic of the world. As the law stands, only the certified insane can receive treatment within its walls, and thus it will be merely one of the ordinary asylums of the County of London, receiving patients after their disease is fully developed, and as now, through the workhouse infirmary upon the order of the

magistrate. Such a procedure in regard to the mentally infirm seems to suggest it were a crime to be ill, and a crime which needed to be further stigmatised with pauperism. What we urgently need is greater elasticity to treat early symptoms, to treat them during the stages when an accurate diagnosis may not yet be possible, and before the disease has become chronic.

As has been wisely said by Dr. Helen Boyle, insanity begins long before the patient is insane. The relatives and friends observe changes in the manner, speech, and conduct long before the medical certificate has been signed or the magisterial order has been made. The trend of opinion to-day is to give a trial to mental cases before certification has become necessary, and our out-patient mental departments in general hospitals testify to the value of help and direction before delusions have become fixed and before the disease has become confirmed. The London County Asylums' statistics prove that 65 per cent. of all cases attacked with insanity get well and leave the asylums within a twelvemonth of their admission.

What would be thought of a doctor who did not place a patient suffering from tuberculosis under treatment until cough, hectic and emaciation had fully confirmed the diagnosis? Indeed, treatment in our sanatoriums is excluded when these symptoms are present, recognising the need for early treatment. What, again, would be thought of a medical officer of health who waited for desquamation in scarlet fever before removing the patient to the isolation hospital? Precisely on similar lines should be the case of the mental patient. I know that this question must be carefully safeguarded from abuse, and that there are many dangers connected with it; but it is the first time that the subject has been discussed at a meeting of the Medico-Legal Society, a society which is essentially constituted to deal fully and effectively with a condition whose every stage comes under the double supervision of the lawyer and the medical man.

SANITARY AFFAIRS AT ILFORD.

ON two recent occasions[1] we have drawn attention to the differences which have existed for the last four years between the Ilford urban district council and its medical officer of health, Mr. C. F. Stovin. Since we last wrote upon this subject further developments have occurred.

The public inquiry by the Local Government Board which Mr. Stovin had asked for was held early in July last. As a result of this inquiry two Inspectors of the Board drew up fresh regulations for the working of the public health department at Ilford, which were agreed to by the council and its medical officer of health, and for a time peace seemed to have been restored. But the underlying causes of the strained relationship were still at work. Before long further difficulties arose, and at a special meeting of the Ilford district council on Nov. 19th last it was decided almost unanimously to give Mr. Stovin three months' notice to terminate all his appointments under the council and to suspend him immediately pending the intervention of the Local Government Board. This meeting was attended by Mr. Stovin, and from the full account of the proceedings which appeared in the *Ilford Recorder* of Nov. 21st it appears that the council's drastic action was precipitated by certain technical acts of insubordination on the part of the medical officer of health. In two particulars of sanitary administration Mr. Stovin departed from instructions contained in regulations laid down by the council as a result of the Local Government Board inquiry. The chairman of the public health committee of the council, who moved the suspension of the medical officer of health, characterised Mr. Stovin's action as in direct opposition to the wishes of the council, and announced that he would give up his seat on the council unless Mr. Stovin was removed from office.

During Mr. Stovin's suspension the assistant medical officer of health has taken charge of the Public Health Department. In the meantime the local medical profession has not remained inactive, but has definitely ranged itself on the side of the dismissed officer. On Dec. 2nd a general meeting of medical practitioners in the Ilford district was called by Mr. Percy J. Drought, honorary secretary of the Ilford Medical Society, and a resolution was carried unanimously to the effect that temporary assistance should not be rendered by any medical practitioner residing in the district during Mr. Stovin's suspension until after the decision of the Local Government Board had been made known. Moreover, representations were made to us by Mr. Drought that for the time being advertisements for temporary medical assistance in the Ilford department of public health should not be inserted in THE LANCET. Accordingly, advertisements submitted to us by the Ilford district council have been refused insertion.

The decision of the Local Government Board has now been given in a letter dated Jan. 9th, of which we have received a copy. The Board expresses regret that the adjustment of the differences between the Council and its medical officer of health, arrived at as the result of the inquiry held by the Board's Inspectors, has so soon been disturbed. The Board reminds the council that at a discussion between the Inspectors and a special committee on July 23rd the following principles, amongst others, were laid down with a view to defining the relations between the medical officer of health and the sanitary staff:—

1. The medical officer of health to be the head of the public health department, and the inspector of nuisances not to be independent.

2. The assistant inspectors to report and take instructions from the chief inspector of nuisances as a rule, but, in necessary cases, the medical officer of health to direct the assistant inspectors as thought fit by him.

3. Drainage work and collection of house refuse to be under the direction of the inspector of nuisances, this officer reporting and conferring with the medical officer of health when necessary.

The Board adds that certain regulations, which the council claims to have made with the full concurrence of the Inspectors, were not in fact communicated to the Board or its Inspectors, and were not in complete accord with the principles laid down at the conference on July 23rd. More important still, the Local Government Board emphasises the importance which it attaches to the general principle that the medical officer of health should be regarded as the chief officer of the public health department, and refers to a circular of Dec. 14th, 1910, drawing attention to the fact that the inspector of nuisances must as a rule act under the general supervision of the medical officer of health, who must be regarded as the head of the public health department of the council. This is a perfectly clear expression of policy and establishes the principle for which, as we understand the matter, Mr. Stovin has been fighting throughout this long-drawn controversy. With regard to Mr. Stovin's departures from the regulations, the Board considers that he acted improperly in varying his instructions, and holds that he should have represented his objections to these regulations to the public health committee of the council before giving directions to subordinate officers; and they regard his report upon his action in the matter as unfortunate in its tone. But while the Board considers Mr. Stovin deserving of censure for departing from the regulations without the authority of the committee, it holds that in view of the efficient manner in which he has discharged his duties for a number of years this departure was not in itself sufficient ground for the extreme step of dismissing him from office, and it requests the Ilford district council to reconsider the matter.

There the case stands for the moment, but it is clear that the Local Government Board will not be a party to the dismissal of a competent and zealous medical officer of health, who, finding his efforts on behalf of the community thwarted, refuses to be deterred from his duty by the lay body which is

[1] THE LANCET, April 12th, 1913, p. 1039; June 21st, 1913, p. 1752.

set in authority over him. We hope that the Ilford district council will now realise that persistent efforts to dislodge a responsible official because his views of public duty conflict with theirs are not for the good of the community. We have dwelt upon the Ilford dispute at such length because it shows the need for taking out of the hands of local authorities the appointment and dismissal of medical officers of health.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

MEETING OF COUNCIL.

A QUARTERLY meeting of the Council was held on Jan. 8th, Sir RICKMAN J. GODLEE, the President, being in the chair.

Mr. Walter G. Spencer was introduced, made a declaration in the terms of the oath prescribed by the Charter of 1800, and was readmitted a member of the Court of Examiners.

The PRESIDENT stated that Sir Watson Cheyne, Bart., had consented to deliver the next Hunterian Oration, and accordingly he declared Sir Watson Cheyne Hunterian orator for 1915.

A letter was read from Mrs. Sydney Jones thanking the Council for their expression of sympathy on the occasion of the death of her husband.

A vote of thanks was given to Mrs. King, of Milton, Mass., U.S.A., for presenting a clock to the College in memory of her father, the late Dr. W. F. C. B. Fifield, M.R.C.S., of Boston.

Mr. Charters J. Symonds was appointed a representative of the College on the Council of Queen Victoria's Jubilee Institute for Nurses for three years.

A report from the Committee of Management was received and adopted. It was as follows:—

1. The Committee of Management have considered a recommendation of the examiners for the Diploma in the Diseases and Hygiene of the Tropics, that the examination be divided into two parts, and as the committee are of the opinion that it is desirable to adopt this proposal, they recommend that the following new Clauses be substituted for Clauses I. to III. of the existing regulations, viz.:—

I. The examination will be held in the months of April and July.

II. The examination will consist of two parts.

Part I. will comprise—(*a*) written questions; (*b*) oral questions; and (*c*) practical laboratory work in the following subjects: pathology and hæmatology, bacteriology, general parasitology, and protozoology.

Part II. will comprise—(*a*) written questions; (*b*) oral questions; and (*c*) clinical and laboratory work in tropical diseases and hygiene. This will include helminthology, protozoology, zoology, and entomology in their relations to clinical medicine.

III. The fee for admission to Part I. is £5 5s., and the fee for admission to Part II. is £4 4s.

IV. Candidates may enter for Parts I. and II. separately, or together, but they will not be allowed to proceed to Part II. until they have passed Part I.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

BEGINNING with the current week the recently extended city of Exeter will be added to the list of towns for which statistics are published in the weekly return of the Registrar-General. In these 97 towns, each of which had a population exceeding 50,000 persons at the last Census and whose aggregate population at the middle of this year is estimated at 18,120,059 persons, 9199 births and 6703 deaths were registered during the week ended Saturday, Jan. 10th. The annual rate of mortality in these towns was equal to 19·3 per 1000, against rates steadily rising from 13·2 to 18·6 per 1000 in the five preceding weeks in the former 96 towns. This is the highest death-rate recorded for the aggregate of these towns since the sixth week of the year 1912. Among the several towns the annual death-rate last week ranged from 8·7 in Barrow-in-Furness, 8·8 in Hornsey, 10·3 in Ilford, 10·4 in Walthamstow, and 10·6 in Southend-on-Sea, to 28·1 in Great Yarmouth and in Norwich, 28·7 in Swansea, 30·8 in Stockton-on-Tees, 31·2 in Bath, and 32·1 in Wolverhampton.

The 6703 deaths from all causes were 328 in excess of the number in the previous week, and included 355 which were referred to the principal epidemic diseases, against 348 and 346 in the two preceding weeks. Of these 355 deaths, 89 resulted from infantile diarrhœal diseases, 66 from measles, 65 from diphtheria, 64 from whooping-cough, 43 from scarlet fever, and 28 from enteric fever, but not one from small-pox. The mean annual death-rate from these diseases last week was equal to 1·0 per 1000, and coincided with that recorded in each of the three preceding weeks. The deaths of infants (under 2 years of age) attributed to diarrhœa and enteritis, which had been 96, 89, and 80 in the three preceding weeks, rose to 89 last week; of this number 23 were recorded in London, 6 in Birmingham, 6 in Manchester, 5 in Stoke-on-Trent, 5 in Liverpool, and 4 in Middlesbrough. The deaths referred to measles, which had been 62, 80, and 76 in the three preceding weeks, further declined to 66 last week, and included 8 in Burnley, 7 in London, 5 in Sheffield, 5 in Middlesbrough, and 4 each in Bradford, Barnsley, and South Shields. The fatal cases of diphtheria, which had been 69, 60, and 64 in the three preceding weeks, were 65 last week, of which 11 occurred in London, 8 in Birmingham, 5 in Sheffield, and 3 each in Portsmouth, Northampton, Liverpool, and Manchester. The deaths attributed to whooping-cough, which had been 56, 61, and 76 in the three preceding weeks, declined to 64 last week, and included 12 in London, 10 in Birmingham, 6 in West Ham, 4 in Liverpool, and 4 in Leeds. The deaths referred to scarlet fever, which had been 38, 38, and 34 in the three preceding weeks, rose to 43 last week; of this number 8 were registered in Salford, 6 in Sheffield, 4 in London, and 2 each in Ipswich, Birmingham, Manchester, Preston, and West Hartlepool. The fatal cases of enteric fever, which had declined from 26 to 16 in the four preceding weeks, rose to 28 last week, of which 5 occurred in London, 4 in Liverpool, 2 in Stockport, 2 in Sheffield, and 2 in Hull.

The number of scarlet fever patients under treatment in the Metropolitan Asylums and the London Fever Hospitals, which had fallen from 4143 to 3874 in the five preceding weeks, had further declined to 3757 on Saturday last; 416 new cases were admitted during the week, against 458, 326, and 425 in the three preceding weeks. These hospitals also contained on Saturday last 1081 cases of diphtheria, 219 of whooping-cough, 55 of measles, and 54 of enteric fever, but not one of small-pox. The 1779 deaths from all causes in London were 164 in excess of the number in the previous week, and were equal to an annual death-rate of 20·5 per 1000. The deaths referred to diseases of the respiratory system, which had been 307, 280, and 423 in the three preceding weeks, further rose to 511 last week, and were 211 in excess of the number recorded in the corresponding week of last year.

Of the 6703 deaths from all causes in the 97 towns, 223 were attributed to various forms of violence, and 560 were the subject of coroners' inquests. The causes of 52, or 0·8 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest. All the causes of death were duly certified in Manchester, Leeds, Bristol, West Ham, Bradford, Hull, Newcastle-on-Tyne, and in 65 other smaller towns. Of the 52 uncertified causes of death, 12 were registered in Birmingham, 8 in Liverpool, 3 in Burnley, and 3 in South Shields.

HEALTH OF SCOTCH TOWNS.

In the 16 largest Scotch towns, with an aggregate population estimated at 2,295,800 persons at the middle of this year, 1398 births and 889 deaths were registered during the week ended Saturday, Jan. 10th. The annual rate of mortality in these towns, which had increased from 15·6 to 20·3 per 1000 in the five preceding weeks, slightly declined to 20·2 per 1000 in the week under notice. During the 14 weeks included in the December quarter of last year the mean annual death-rate in these Scotch towns averaged 15·9, or 1·7 per 1000 above the corresponding rate recorded in the 96 large English towns. Among the several towns the death-rate last week ranged from 11·0 in Ayr, 13·8 in Perth and in Motherwell, and 14·4 in Leith, to 28·1 in Clydebank, 31·5 in Coatbridge, and 32·8 in Paisley.

The 889 deaths from all causes were 8 in excess of the number in the previous week, and included 79 which were referred to the principal epidemic diseases, against 78 and 85 in the two preceding weeks. Of these 79 deaths, 36 resulted from measles, 14 from diphtheria, 12 from infantile diarrhœal diseases, 9 from scarlet fever, 5 from whooping-cough, and 3 from enteric fever, but not one from small-pox. These 79 deaths from the principal epidemic diseases were equal to an annual death-rate of 1·8, against 1·0 per 1000 in the 97 large English towns. The deaths attributed to measles, which had been 39, 37, and 50 in the three preceding weeks, declined to 36 last week, and included 15 in Glasgow, 6 in Paisley, 5 in Edinburgh, 3 in Greenock, 2 in Leith, and 2 in Kirkcaldy. The deaths referred to diphtheria, which had been 12, 10, and 12 in the three preceding weeks, rose to 14 last week, of which 6 occurred in Glasgow, 3 in Edinburgh, and 2 in Aberdeen. The fatal cases of diarrhœa and enteritis (among infants under 2 years), which had been 14, 9, and 11 in the three preceding weeks, were 12 last week, and included 3 in Aberdeen, 3 in Coatbridge, 2 in Glasgow, and 2 in Edinburgh. The deaths attributed to scarlet fever, which had declined from 12 to 7 in the four preceding weeks,

rose to 9 last week, and comprised 4 in Edinburgh, 2 in Glasgow, 2 in Aberdeen, and 1 in Clydebank. The deaths referred to whooping-cough, which had been 3, 11, and 5 in the three preceding weeks, were again 5 last week; 2 deaths were registered in Edinburgh, 2 in Coatbridge, and 1 in Paisley. The 3 fatal cases of enteric, which were recorded in Glasgow, Dundee, and Motherwell respectively, were slightly in excess of the average in the December quarter of last year.

The deaths referred to diseases of the respiratory system, which had been 139, 167, and 184 in the three preceding weeks, were again 184 in the week under notice; 33 deaths were attributed to various forms of violence, against 31 and 30 in the two preceding weeks.

HEALTH OF IRISH TOWNS.

In the 27 town districts of Ireland, with an aggregate population estimated at 1,205,280 persons at the middle of this year, 640 births and 588 deaths were registered during the week ended Saturday, Jan. 10th. The annual rate of mortality in these towns, which had been 18·9, 15·9, and 25·7 per 1000 in the three preceding weeks, declined to 25·4 per 1000 in the week under notice. During the 14 weeks included in the December quarter of last year the mean annual death-rate in these Irish towns averaged 17·8 per 1000; in the 96 large English towns the corresponding rate did not exceed 14·2, while in the 16 Scotch towns it was equal to 15·9 per 1000. The annual death-rate last week was equal to 26·3 in Dublin (against 20·5 in London and 18·4 in Glasgow), 26·5 in Belfast, 29·2 in Cork, 14·0 in Londonderry, 16·2 in Limerick, and 30·4 in Waterford, while in the 21 smaller towns the mean death-rate was 23·6 per 1000.

The 588 deaths from all causes were 5 fewer than the number in the previous week, and included 44 which were referred to the principal epidemic diseases, against 31 and 32 in the two preceding weeks. Of these 44 deaths, 13 resulted from scarlet fever, 8 from measles, 7 from infantile diarrhœal diseases, 6 from diphtheria, 5 from whooping-cough, and 5 from enteric fever, but not one from small-pox. The mean annual death-rate from these diseases last week was equal to 1·9 per 1000; in the 97 large English towns the corresponding rate did not exceed 1·0, while in the 16 Scotch towns it reached 1·8 per 1000. The deaths attributed to scarlet fever, which had declined from 13 to 3 in the five preceding weeks, rose to 13 last week, and comprised 12 in Belfast and 1 in Clonmel. The deaths referred to measles, which had steadily risen from 1 to 7 in the five preceding weeks, were 8 last week, of which 6 occurred in Armagh. The fatal cases of diarrhœa and enteritis (among infants under 2 years), which had been 11, 7, and 6 in the three preceding weeks, were 7 last week; 2 deaths were recorded in Dublin, 2 in Belfast, and 2 in Waterford. The deaths attributed to diphtheria, which had been 8, 2, and 7 in the three preceding weeks, were 6 last week, and comprised 4 in Belfast and 2 in Dublin. The 5 deaths referred to enteric fever, of which 3 were recorded in Dublin, were slightly in excess of the weekly average during the December quarter of last year. The fatal cases of whooping-cough, which had been 6, 10, and 7 in the three preceding weeks, further declined to 5 last week, 3 of which occurred in Belfast. In addition to the above, 2 deaths from typhus were registered in Belfast.

The deaths referred to diseases of the respiratory system, which had been 80, 89, and 162 in the three preceding weeks, declined to 154 in the week under notice. Of the 588 deaths from all causes, 169, or 29 per cent., occurred in public institutions, and 15 resulted from various forms of violence. The causes of 26, or 4·4 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest; in the 96 large English towns the proportion of uncertified causes of death last week did not exceed 0·8 per cent.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been notified:—Fleet-Surgeon: H. B. Hall to the *Talbot*. Staff-Surgeons: H. A. Kellond-Knight to the *Pembroke*, additional, for disposal, and L. F. Cope to the *Victory*, additional, for Portsmouth Dockyard. Surgeons: B. E. P. Sayers to the *Halcyon*, additional, for the *Spanker*; D. G. Arthur to the *Britomart*, additional, and on recommissioning; L. Moss to the *Widgeon*, additional; G. F. B. Page to the *Teal*, additional, and on recommissioning; R. M. Riggall to the *Alecto*, temporary; A. M. Henry to the *Pomone*, additional, for Dartmouth College, temporary; H. H. Ormsby to the Royal Marine Depôt, Deal, temporary; G. B. Scott to the *Vivid*, additional, for disposal; J. H. Burdett to the *Victory*, additional, for disposal, and to the *Vivid*, additional, for Plymouth Hospital, temporary; A. V. J. Richardson to the *Victory*, additional, for disposal, and to Royal Marine Division, Portsmouth, temporary; R. Connell to the *Vivid*, additional, for disposal, and to the *Prince of Wales*; G. W. M. Custance to the *Victory*, additional, for disposal, and to the *Racer*, additional, for Osborne College, temporary; C. J. Aveling to the *Victory*, additional, for disposal, and to the *Colleen*, additional, for Haulbowline Hospital; F. H. Stephens to the *Vivid*, additional, for disposal, and to Royal Marine Division, Plymouth, temporary; G. M. Levick, A. T. Rivers, T. R. L. Jones, K. H. Hole, G. F. Syms, H. F. Briggs, M. P. Fitzgerald, J. Barratt, G. A. Jackson, A. G. Malcolm, H. C. Devas, and H. W. Nicholls, all to the *President*, additional, for five months' course of instruction at the Naval Medical School, Greenwich.

ROYAL NAVAL VOLUNTEER RESERVE.

The undermentioned gentlemen have been appointed Surgeons: William Henry Austin Sinclair-Loutit and James Lorimer (dated Jan. 6th, 1914).

ARMY MEDICAL SERVICE.

Colonel Robert Porter, on completion of four years' service in his rank, is placed on the half-pay list (dated Jan. 14th, 1914).

Lieutenant-Colonel Michael W. Russell, from the Royal Army Medical Corps, to be Colonel, vice R. Porter, to half-pay (dated Jan. 14th, 1914).

ROYAL ARMY MEDICAL CORPS.

Supernumerary Captain William E. Marshall is restored to the establishment (dated Jan. 1st, 1914).

Colonel R. H. Firth, Assistant Director of Medical Services to the First (Peshawar) Division of the Northern Army in India, has taken up duty at headquarters, Cherat Cantonment.

Lieutenant-Colonel M. O'D. Braddell has taken over charge of the Military Hospital at Limerick on return home from Cawnpore. Lieutenant-Colonel J. Girvin, on arrival home from India tour-expired, has been selected for appointment to hold charge of the Military Hospital at the Curragh. Lieutenant-Colonel J. S. Davidson has been selected for the increased rate of pay under Article 317 of the Royal Warrant. Lieutenant-Colonel J. W. Bullen has been appointed to hold charge of the Military Hospital at Sheffield. Lieutenant-Colonel H. M. Adamson has relinquished charge of the Military Hospital at Strensall, and embarked for a tour of service in India. Lieutenant-Colonel C. W. R. Healey has arrived home from Nasirabad Cantonment, for duty, tour expired. Lieutenant-Colonel D. Shanahan, Deputy Assistant Director of Medical Services (Mobilisation) to the Ninth (Secunderabad) Division, on arrival home for duty from Ootacamund Cantonment, has been appointed to headquarters of the Eastern Command. Lieutenant-Colonel L. Way has been selected for appointment to hold charge of the Military Hospital at Ferozepore Cantonment. Lieutenant-Colonel F. W. Begbie has taken up duty in the Burma Division as Senior Medical Officer at Maymyo Cantonment.

Major E. W. Slayter has been appointed to the Irish Command for duty on arrival home from Mount Abu Cantonment. Major S. de C. O'Grady has been transferred from medical charge at the Tower of London to the Aldershot Command. Major G. St. C. Thom has been selected for appointment as Deputy Assistant Director of Medical Services to the Lowland Division. Major S. J. C. P. Perry has been appointed to the Military Hospital at Lebong. Major J. S. Bostock has arrived home for duty from India, by exchange with Major J. W. H. Houghton. Major B. Watts has been appointed to the London District for a tour of duty. Major J. H. Campbell, D.S.O., has been transferred from the London District to the Eastern Command for duties at headquarters. Major J. E. Hodgson has been selected for appointment as Specialist Sanitary Officer to the Northern Command. Major D. Lawson has embarked for a tour of service at the Military Hospital, Mauritius. Major J. Powell has been permitted by His Majesty the King to accept and wear the Imperial Ottoman Order of the Osmanieh (Fourth Class) conferred on him by H.H. the Khedive of Egypt. Major C. H. Hopkins has been selected for appointment to hold medical charge at Devizes. Major H. W. H. O'Reilly has relinquished medical charge of troops at Colchester and embarked for a tour of duty with the Ninth (Secunderabad) Division of the Southern Army in India. Major L. F. Smith has been appointed to the Aden Brigade.

Captain C. Ryles has arrived home for duty from India, tour expired. Captain J. J. O'Keefe has been appointed for duty in the Eastern Command. Captain G. B. Edwards has been transferred from Halifax to the Eastern Command. Captain J. R. Lloyd has been placed under orders for transfer from the Fifth (Mhow) Division of the Southern Army in India to the Military Hospital at Aden, vice Captain E. D. Caddell, tour expired. Captain H. B. Connell has taken up duty at Liverpool, on transfer from Shrewsbury. Captain A. S. Arthur has been transferred from Wrexham to the

Military Hospital at Newport. The following Captains have joined the Royal Army Medical College at Grosvenor-road, S.W., for the courses of instruction for promotion to the rank of Major: J. W. L. Scott (from Netley), W. C. Smales (Portsmouth), A. H. Bond (Limerick), and A. C. Vidal (Aldershot). Captain M. B. H. Ritchie has arrived home, tour expired, for duty from India. Captain C. P. O'Brien-Butler has been appointed to the Irish Command for duty. Captain L. V. Thurston has been transferred from the Cambridge Hospital at Aldershot to the Military Hospital at Bordon. Captain M. J. Cromie has taken up duty at the Military Hospital, Maidstone, on transfer from Chatham. Captain G. P. A. Bracken has arrived home for duty from Malapurram Cantonment. Captain W. H. O'Riordan has been appointed to Dehra Dun for a course of Instruction in Radiography, on transfer from the Military Hospital at Murree Cantonment. Captain H. Gall has joined at Sialkot. Captain C. R. Millar, on arrival in the Irish Command on Jan. 23rd, will be appointed to the Cork District for duty. Captain J. W. Houston has been transferred from the Military Hospital at Cherat Cantonment to Peshawar. Captain A. M. Bennett has arrived home, tour expired, for duty from India. Captain C. Ryles has been appointed to the Alderney District for duty. Captain A. L. Foster has been placed under orders for transfer from the Second (Rawal Pindi) Division of the Northern Army in India to the Military Hospital at Aden, vice Captain W. F. Loughnan, tour expired. Captain G. B. Edwards has been transferred from Leicester to the Military Hospital at Shorncliffe. Captain E. C. Phelan has taken up duty at the Military Hospital, Barrackpore, on transfer from Dinapore Cantonment. Captain J. E. H. Gatt, attached to the Station Hospital at Allhabad Cantonment, has been directed to proceed to Benares Cantonment to take charge of the Military Hospital, vice Captain A. Irvine-Fortescue, proceeding to Japan to study the Japanese language. Captain F. W. M. Cunningham has been transferred from the Military Hospital at Kalabagh to Sialkot. Captain M. Keane has taken up duty at Reading. Captain T. W. Browne has arrived home for duty, tour expired, from India. Captain L. Murphy has been transferred from the Military Hospital at Bangalore Cantonment to Malapurram, Madras Presidency. Captain G. G. Collett has taken up duty at Karachi Cantonment on transfer from the Military Hospital at Quetta.

INDIAN MEDICAL SERVICE.

The King has approved of the following promotion by brevet: Major Thomas Arthur Granger to be Brevet Lieutenant-Colonel (dated Jan. 1st, 1914).

Colonel J. Crimmin, V.C., C.B., C.I.E., has been transferred from duty under the Home Department of the Government of India, and appointed Assistant Director of Medical Services to the Derajat and Bannu Brigades, vice Colonel J. Grayfoot, transferred.

Lieutenant-Colonel H. W. Pilgrim has been granted general leave of absence home from India to May 10th next. Lieutenant-Colonel R. C. MacWatt has been appointed Agency Surgeon to the Eastern Rajputana States. Lieutenant-Colonel F. O'Kinealy has been appointed Surgeon Superintendent of the Presidency General Hospital at Calcutta.

Major P. F. Chapman, civil surgeon at Nagpur, has been appointed Superintendent of the Lunatic Asylum at Nagpur. Major J. H. Hugo, D.S.O., has been appointed Agency Surgeon at Baghelkhund by the Foreign Department of the Government of India. Major H. de V. Condon, on return from leave of absence, has been appointed Civil Surgeon at Hazara. Major H. Kirkpatrick has taken up duty in Madras. The services of Major R. B. B. Foster have been placed permanently at the disposal of the Government of Madras. Major J. Husband has been appointed to hold civil medical charge of the Wano Agency. Major R. P. Wilson has been appointed to officiate as Superintendent of the Campbell Medical School and Hospital at Sealdah during the absence on leave of Major J. W. F. Rait. Major F. D. S. Fayrer has been granted combined leave of absence home from India for 15 months.

Captain F. H. Salisbury, officiating superintendent of the Central Prison at Dacca, has been granted combined leave of absence home from India for six months. Captain F. P. Connor, on return from leave of absence, has been appointed to officiate as Civil Surgeon and Sanitary Officer at Saran. Captain A. N. Thomas has been granted leave of absence home from India for eight months on medical certificate. Captain M. S. Irani has been appointed to officiate as Civil Surgeon at Sukkur. The services of Captain O. A. R. Berkeley-Hill have been placed temporarily at the disposal of the Government of Madras. Captain H. W. Pierpoint has been appointed medical officer to the Turco-Persian Frontier Commission. Captain J. Anderson has been appointed to hold civil medical charge at Meranshah. Captain R. E. Wright has joined the Bacteriological Department. Captain A. S. Leslie has been appointed to officiate as Assistant Superintendent at the Government Maternity Hospital, Madras. Captain H. Crossle has been granted combined leave of absence home from India for five months. The services of Captain E. C. Hodson have been placed temporarily at the disposal of H.E. the Governor of Madras Presidency. Captain F. R. Coppinger has taken over medical charge of the Civil Prison at Aden. Captain F. C. Fraser has been appointed to officiate as Superintendent of the Central Prison at Vellore. Captain H. S. Hutchinson has been appointed to officiate as Professor of Physiology, Histology, and Hygiene at the Grant Medical College, Bombay, during the absence on leave of Major L. T. R. Hutchinson.

TERRITORIAL FORCE.

Royal Army Medical Corps.

For Attachment to Units other than Medical Units.—John Saffley to be Lieutenant (dated Jan. 7th, 1914).

THE TERRITORIAL DECORATION.

The King has conferred the Territorial Decoration upon the undermentioned officers of the Territorial Force:—

Royal Army Medical Corps.

Lieutenant-Colonel Sydney Arthur Monckton Copeman, F.R.S., Sanitary Officer of the 1st London Territorial Division.

2nd East Anglian Field Ambulance, Royal Army Medical Corps: Lieutenant-Colonel John Herbert Stacy.

1st South Midland Field Ambulance, Royal Army Medical Corps: Transport Officer and Honorary Major George H. Dawes. Major John Henry Harris attached to the 4th Wessex Brigade, Royal Field Artillery. Major Francis James Warwick, attached to the 8th (Cyclist) Battalion, the Essex Regiment. Major Henry Dutch, attached to the 4th (City of London) Battalion, The London Regiment (Royal Fusiliers).

DEATHS IN THE SERVICES.

Major Ernest Chester Anderson, D.S.O., late R.A.M.C., at Totland Bay, in his fifty-second year. He entered the army in 1892 and served in the South African war. He was present at the relief of Kimberley and at the operations in the Orange Free State, including the engagement at Paardeberg (mentioned in dispatches, Distinguished Service Order, the Queen's medal with four clasps, and the King's medal with two clasps). He reached the rank of major in 1904 and retired in 1912.

WEST AFRICAN MEDICAL STAFF.

The members of the West African Medical Staff will dine together on Wednesday, Jan. 21st, at 7.45 P.M., in the Walnut Rooms, Grand Hotel, London, under the chairmanship of the president, Mr. J. P. Fagan.

ROYAL WATERLOO HOSPITAL ARMY COT.

Prince Alexander of Teck is making an appeal for funds for the endowment of a cot in the Royal Waterloo Hospital for the sick child of any discharged soldier living in London.

JOURNAL OF THE ROYAL ARMY MEDICAL CORPS.

The January issue of this journal, the first number of the twenty-second volume, contains, among other articles, two communications of interest with regard to milk problems. The first, an Investigation into the Keeping Properties of Condensed Milks at the Temperature of Tropical Climates, by Lieutenant-Colonel W. W. O. Beveridge, D.S.O., concludes with the expression of opinion that the change in colour of certain kinds of condensed milks in tropical climates is presumably due to brown colour being developed by sugars which reduce in solution at a certain temperature. It is recommended that only those brands of unsweetened milks which have been proved to be sterile should be selected for use in tropical climates. The second article is a preliminary note on the Presence of Agglutinins for the Micrococcus Melitensis in the Milk and Blood Serum of Cows in London, by Major J. C. Kennedy. The author prefixes a note of warning to his article explaining that he does not wish to appear as an alarmist, nor as being understood to say that, because in high dilutions the milk and the blood serum of certain cows in London dairies agglutinate the micrococcus melitensis, the cows are therefore capable of transmitting undulant fever. In Pulmonary Tuberculosis in the Royal Navy, with Special Reference to its Detection and Prevention, Surgeon Campbell Ross, R.N., while admitting that pulmonary tuberculosis is still a very common disease in the Royal Navy, states that all indications go to prove that it is on the decrease, and he looks forward with confidence to a time in the future when pulmonary tuberculosis will be one of the incidental diseases in the British Navy. In "Man and Nature" Colonel R. H. Firth gives us another of his delightful musings of a philosophical nature. In the present instance his reflections deal with the emotions produced by contemplating nature in "her grandest, most awe-inspiring, and even mystical aspects."

MEDICAL PRACTICE UNDER THE INSURANCE ACT.

(BY OUR SPECIAL COMMISSIONER.)

(*Continued from p. 139.*)

XXXIV.—BRISTOL: THE REFEREE AND REVISED DRUG BILLS.

BRISTOL is one of the towns where there was considerable opposition against the Act and where some advantage was secured as a result. The members of the profession began to hold meetings on the question of insurance two years before the Act was adopted. Then the Bristol delegates at the Birmingham meeting of the British Medical Association complained that the war chest was not full, but sought legal opinion to ascertain whether the Association had the legal right to organise what was practically a strike fund. Though the legal opinion obtained proclaimed that the money was safe, a medical federation was started so as to have a fund more safely secured, and this organisation obtained recognition from the Board of Trade as a limited company, with an existence quite independent from the Association. This was considered safer than registering as a trade union. The scepticism of the Bristol practitioners did not please the British Medical Association. The latter, deeming that their money scheme was good enough for everybody, decided against immediate coöperation with the Bristol Federation. The Bristol practitioners felt they had an opportunity of going forward and of obtaining considerable sums of money, yet if they collected subscriptions at the same time as the Association, and for the same strike fund purposes, they would damage both funds. The Bristol Federation, to its regret, reluctantly had to acknowledge it was bound to support the general effort. For the sake of unity and discipline its members abandoned their enterprise and their good opportunity of creating a safe and strong local fund. The Federation rules were that every member rendered himself responsible for a minimum subscription of £2 and a guarantee of £5—this, at least, was the figure mentioned to me. In any case, none of the money was called up, and those who had given promises were asked to transfer their subscription to the British Medical Association. In doing this it is claimed that the Bristol practitioners gave more in proportion than the practitioners of any other town in England.

In November, 1912, when the agitation against the Act was at its height, there were in the Bristol Division of the British Medical Association 421 practitioners, and of these 276 subscribed. Though in November of that year they only actually paid in £293 19*s*. they guaranteed £4488 5*s*. The votes given were as emphatic as the money subscribed, both proving how strong was the feeling against the Act. At the meeting held on Dec. 20th, 1912, only 3 out of 417 votes recorded were in favour of accepting panel service. These three voters were, however, perfectly loyal to the majority, maintaining discipline while expressing their individual opinion. Bristol claims that it brought forward a greater number of medical men against the panel and subscribed a larger sum for the strike fund than any town in England, yet when on Christmas Eve a small group of practitioners announced that they felt obliged to go on the panel, all the others, doubting the adequacy of the available "strike funds," found themselves compelled to follow suit. This was not formally decided upon, however, until certain special privileges had been obtained for the Bristol Panel Service. With all this it sufficed for one single practitioner to declare on Christmas Eve that he must go on the panel, and thereupon the entire resistance collapsed. Another practitioner announced he would in that event be obliged to follow suit, and so would all the rest.

Satisfactory Constitution of Medical Committees.

In the face of this defection, and seeing that they could not hold out, the Bristol practitioners nevertheless managed to obtain special terms. Among the various concessions made by the English Commissioners as a condition for the formation of a panel at Bristol was the appointment of a referee, or medical adviser, as he is here called. Also it was agreed that all matters concerning medical men should be submitted to a medical subcommittee, consisting of five representatives of the Local Medical Committee and five representatives of the Insurance Committee, with a town councillor as chairman. The referee has an annual income, and the great point is that his nomination does not depend on the Insurance Committee, for he is chosen by the Medical Committee. On this committee the non-panel practitioners are well represented.

At first there was a great bitterness of feeling between the practitioners on the panel and those who held aloof, but when it was found that the former made room on the Medical Committee for the latter peace was re-established. To-day, even on the special Panel Committee to be formed in accordance with the amendments to the Act, six non-panel practitioners are to be appointed. This is a clear proof of the friendly feelings that to-day prevail on both sides. Not many in Bristol among the extreme opponents of the Act would now like to see it abolished. Certainly there remains room for improvement. It is thought, for instance, that the Insurance Committee is not sufficiently influenced by the Medical Committee. As a local practitioner exclaimed in my presence: "The doctors sell their labour, but have hardly any voice in the bargain."

Bristol is divided into seven groups or districts, which originated with the British Medical Association and were adopted by the provisional Medical Committee that emanated therefrom. Ultimately the Insurance Commissioners endorsed this method of election. The rule, roughly speaking, is that there should be one elected out of every ten medical men practising in the town. There are 34 members on the Local Medical Committee. The Panel Medical Committee is to be elected by groups according to the strength of the panel men belonging to these groups, and this will be a much larger committee in proportion to the numbers represented. As for the existing Medical Committee, it has had a hard time dealing with financial problems and a great quantity of trifling routine work.

The First Referee.

It is in the appointment of a referee, however, that Bristol stands prominent. The initiative taken here has since been followed at Oxford and Plymouth, but to Bristol belongs the credit of having set the example. Nor was it an easy matter. Thus each Friendly Society wanted to have a referee of its own, presumably to quarrel one with the other. Then a pertinent question was asked as to who should pay the referee. The

Commissioners said the Approved Societies must provide the money. At first the Insurance Committee had offered to pay so as to induce the practitioners to come on the panel. Then it was felt that there were not only cases of malingering, but doubts might arise as to proper treatment, and practitioners found it offensive to have anyone calling to inquire about their work. On the other hand, the opinion of a properly appointed expert, who was not a rival in practice, might be welcome. Thus the referee is not merely a referee, but a medical adviser. As a matter of fact, however, the chief amount of work done is referee work, the question being the fitness of persons for sick allowance.

Out of about 120,000 insured persons from March 1st to the end of October, 554 cases were sent to the referee. The first 500 cases were analysed, and showed that there were 210 males and 290 females. The result was that 189 were pronounced to be fit for work, 170 were not fit, and 104 did not attend, and consequently must have gone back to work of their own accord; 20 had gone back to work before the notice could be served on them, and 9 proved to be cases under the Compensation Act.

The referee only reports whether the patient is fit or is not fit to work; no details are given. Yet he keeps for his own use many notes concerning the cases, and these are so stored as to be quickly available for reference. Thus a red tag is affixed to the card of a patient who has been twice. The trouble is to get hold of cases early enough, this being due to the difficult position in which the medical attendant is placed. The Friendly Societies are trying to get back their control over the medical men who attend on their members. But the referee works with the practitioners and notifies them when their patients have been told to present themselves. It would never do to allow the Friendly Societies to have sole control of the appointment of the referee, for then his bed would indeed be one of thorns. As matters now stand, the Bristol panel practitioner occupies a position of enviable independence. He thinks one of his patients is well enough to go back to work, but the latter very much objects. Thereupon, but after the lapse of a few days, the patient is summoned to appear before the referee. He cannot tell, however, whether it is his medical man or an inspector from the Approved Society to which he belongs who has reported him to the referee. By this method the panel practitioner does not run the risk of losing his patient because he has refused to give him a certificate that will enable him to remain in receipt of sick pay longer than necessary.

The Bristol referee was paid £50 the first two quarters of the year; then, as the work became much harder than was at first anticipated, he received £72 for the third quarter, but is only to have £62 for the fourth quarter. The excuse given for this reduction is that as the Approved Societies must contribute to the cost they will take better care and there will be fewer cases. Dividing the sums received by the number of cases seen the referee found that it worked out at 5*s.* 9*d.* each case. This raises a big question. Is the appointment of referees going to lower the fee generally paid to consultants—is it going to constitute a sort of competition against consultants? Finally, is the Bristol medical adviser or referee going to be maintained in his post? The Friendly Societies agree that this should be done, but when the Commissioners' scheme is brought to light it may change the whole aspect of the case.

Reducing the Cost of Prescriptions.

A great deal of thought and attention has been devoted at Bristol to the drug bill. Basing their calculations on experience, it was found that the prescription sheet for one patient must not cost more on an average than 5½*d.* The term sheet means not one medicament, but all the patient's needs—for instance, some pills, an ointment, and perhaps a bandage. If the average cost per sheet is 7½*d.*, then the extra 6*d.* will be absorbed and the drug bill will amount to 2*s.* per annum per insured person. But in July at Bristol the average cost of the prescription sheets was 8*d.* As this could not possibly continue an inquiry was instituted, and good work was at once done in pruning the prescriptions.

Then it was discovered that though the panel practitioners had the tariff before them they failed to appreciate the financial difference between an infusion and a tincture. Though a much larger quantity of an infusion must be given to get the same amount of the active agent, it may nevertheless be much cheaper. Then there are the minim, drachm, and ounce rates. To escape the proportionately higher minim rate it is often cheaper to prescribe 2 drachms rather than 1½ drachms, the higher rate being charged for quantities under 2 drachms. Thus 16 doses of 7½ minims per dose equal 2 drachms, or a quarter of an ounce, and this amount of a tincture would cost probably 1*d.* But if only 12 doses of this same tincture are prescribed this would only amount to 1½ drachms, and be charged at the minimum rate of 1½*d.*, thus costing half as much again for a quarter less. Then economies could be realised in reducing the quantity of colouring and flavouring ingredients.

The following example was given me as to how the cost of a prescription could be reduced:—

	s.	*d.*		*s.*	*d.*
Sod. bicarb. ℥iii. ...	0	0½	Sod. bicarb. ℥iii. ...	0	0½
Tr. nuc. vom. ℥iss. ...	0	1½	Tr. nuc. vom. ℥ii. ...	0	1
Tr. rhei co. ℥i. ...	0	4	Inf. rhei co. ℥iii. ...	0	0½
Tr. gent. co. ℥ii. ...	0	8	Sp. chlorof. ℥ii. ...	0	1
Aq. chlorof. ad ℥viii.	0	0½	Inf. gent. co. ad ℥viii.	0	1
Dispensing fee ...	0	2	Dispensing fee. ...	0	2
	1	4½		0	6

Dose in each case ℥ss.

How Panel Practice Pays.

Perhaps the drug bill is high because there was an extraordinary run of patients calling on the panel practitioner, especially during the first three winter months during which the Act was in force. One panel medical man assured me that in the course of six months he had seen and given advice to 58 per cent. of the insured persons on his list. But these were not the worst months of the year. He had only been able to make the calculation when the card system was adopted, so that the figures given cover the period from April 15th to Oct. 15th. Dividing his receipts by each item of medical attendance, he found he only received 10½*d.* every time his services were required. Another panel practitioner, who had made the same calculation, was more fortunate, for he received 1*s.* 0½*d.* per item.

Inquiring as to how many women were profiting by the Act, one popular panel medical man told me that 30–40 per cent. of his patients were women. He thought, however, that it was doubtful

if poor women got more medical treatment in consequence of the Act than they did before it came into force. In other large towns this was doubtless the case, but at Bristol there was such a number of charities at the disposal of the poor that it was not so likely that the Act would bring to light patients who had previously been neglected. There were two general hospitals appealing for subscriptions by the rivalry of their out-patient departments and extensively advertising the number of patients treated. Then there was, he pointed out, a charitable dispensary, employing a staff of visiting medical officers, and, of course, there were quite a number of hospitals for special diseases. Now all this is reduced. The nine visiting medical men of the dispensary do not attend to insured persons, but they attend to uninsured women and children, and have nearly as much to do as before the Act. It had been calculated that more than one out of every three inhabitants of Bristol used to receive gratuitous medical aid. Consequently it would be difficult to find, even among the poorest paid workers, women who had not been able to obtain the medical attendance they needed. The fear is not so much in regard to the amount of medical attendance available but rather as to its quality.

The Act, more than one practitioner remarked, did not make for quality. It created a stereotyped practice. The practitioner will not rise because his patients will always remain 7*s*. patients. Formerly, as a practitioner increased in knowledge and experience, he secured a better class of patients. He obtained better paid work, had more leisure for study, and devoted more time to his patients. Now the object is to give less time to more patients. Then the restrictions as to prescriptions must be remembered, and no allowance is made in Bristol for what in emergency cases must be provided. At Birmingham 1*s*. per quarter and per 100 insured persons is allowed, making £2 per annum for each 1000 insured persons, and not £50, as erroneously stated when speaking of that town.[1] At Bristol, however, there is no such allowance, so the only way to get a bandage back is to prescribe two when but one is wanted for the second dressing, and the panel practitioner then repays himself for what he had already used.

There is a danger that the panel practitioner will lose prestige, and medical men not on the panel are seeing daily as private patients insured persons. At Bristol some £3000 have accumulated from the payments effected on behalf of persons who have not enrolled themselves on a panel list. They now ask by what right should a panel practitioner receive money from a person who has never asked for or obtained anything from the panel, but has paid full fees for whatever medical assistance he needed. The right of the individual to contract out of the Act is therefore insisted upon in various quarters at Bristol.

(To be continued.)

[1] I have to regret this slip in my article of Nov. 29th, 1913, p. 1573.—*Your Special Commissioner.*

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—The annual dinner of the society will take place on Thursday, Feb. 19th, at 7.30 for 8 o'clock, at the Wharncliffe Rooms, Hotel Great Central, Marylebone-road, N.W. During the evening the society's triennial gold medal will be presented to Professor Arthur Keith, F.R.S. Tickets, price 7*s*. 6*d*. (exclusive of wine), should be obtained beforehand from the senior secretary, Dr. Alfred C. Warren, 41, Lansdowne-road, Holland Park-avenue, W.

Home and Foreign Notes.

(FROM OUR OWN CORRESPONDENTS.)

MANCHESTER.

Medical Men and the National Insurance Acts: a Limitation of Income Scheme.

ON Jan. 14th the second year of medical benefit under the National Insurance Act begins, and the medical men in this city and district are considering renewals of their contracts with the Insurance Committees. In Manchester and Salford medical men are paid out of pooled funds for their services. In many other places the capitation system obtains. As a result of conferences between all concerned it is proposed to overcome the difficulties attributed in Manchester to over-attendance by a limitation to £800 a year of the income which a practitioner may make out of his insured practice.[1] I am informed that, with a few exceptions, all the medical men whose names were on the panel during the past 12 months have signed agreements including the proviso limiting an individual income earned under the Acts to £800 a year. The list of doctors who will serve on the panel for the forthcoming year will be revised early next week.

National Insurance: Reduction of the Drug Bills.

The sum of 2*s*. per insured person has not been found sufficient to meet the drug bills here. The Manchester Medical Committee have now agreed with the Manchester Insurance Committee to reduce as far as possible the expenditure of the drug fund. In future the Medical Committee will inspect all prescriptions, and if necessary deal with them under regulations. Any practitioner ordering drugs or appliances in a manner contrary to the instructions of the Committee will be asked to explain, and failing a satisfactory explanation the cost of such drugs or appliances will be deducted from the sums payable to him by the Insurance Committee and will be transferred to the drug fund. The Medical Committee have issued to the medical men serving under the National Insurance Acts a list of instructions to be observed in prescribing, requiring that prescriptions must be made as simple as possible; that medicine sufficient for four or five days should be ordered, and only when the practitioner is satisfied that a supply is required; that practitioners must satisfy themselves that the amount of medicine or appliances prescribed has been used by the patient before a new prescription is given; that extract of malt and cod liver oil are not to be prescribed except in tuberculous cases notified as such, and these should be urged to apply for sanatorium benefit; that flavouring agents must only be prescribed when required for their medicinal value or to disguise distinctly nauseous drugs; and that expensive proprietary drugs must not be prescribed.

Salford and its Consumptive Children in the Streets.

At the last meeting of the Salford town council a question was asked if it was true that 400 consumptive children who are not permitted to attend the day schools on account of the danger to other children are allowed to run about the streets without being adequately cared for. It was

[1] For the exact scheme submitted to medical men see p. 214.

admitted that the general statement of the case was correct, though the numbers were not authenticated. It appears that the education committee some time ago asked the council to authorise the expenditure of £500 to establish an open-air school and that the council did not approve the proposal. The matter will be brought up again.

Some Statistics regarding School Children.

Some interesting statistics have been published regarding the school children of Manchester. An examination of 500 boys and 500 girls of 13 years of age shows that the average height of the boys in poor-class schools was 52 inches, in medium schools 54, and in good schools nearly 57. In poor schools the average weight was 70 lb., in medium schools 73¼ lb., and in good schools nearly 82 lb. The figures for girls were: height, 54, 54, and 57 inches respectively, and their weights were 75 lb., 77 lb., and 83 lb.

Jan. 12th.

SCOTLAND.

Scottish Poor-law Medical Officers' Association.

THE report of the committee of this association for the year 1913 has just been issued from the headquarters at Glasgow. The work of the year is briefly summarised under the headings Vacant Appointments, Appeals to the Association, Pulmonary Tuberculosis Regulations, the Insurance Act, &c. The death of the treasurer, Dr. Matthew Martin, is recorded with regret. The annual meeting will be held to-day (Friday, Jan. 16th) at the St. Enoch Hotel, Glasgow, at 4.30 P.M. An effort is being made to enlarge the membership of the association, and members of the Poor-law medical service in Scotland are asked to communicate with the secretary, Mr. W. L. Muir, 1, Seton-terrace, Glasgow East.

A Scottish Hospital Exhibit.

At the International Kinematograph Exhibition and Conference to be held in Glasgow from Feb. 17th to 26th next there is to be an exhibition of models, plans, photographs, furniture, surgical equipment, and other things connected with hospital work. The main object of this exhibit is to bring together a collection of articles illustrating new features in construction, equipment, or working.

Granite Trade and Phthisis.

Attention has again been directed in Aberdeen to the prevalence of consumption among workers in the granite yards. A prominent member of the Aberdeen granite trade says difficulty is experienced in getting the men to wear respirators, even although they admit their usefulness. Even the lighter and more comfortable and modern respirators are thrown aside at the first opportunity. The real remedy lies in preventing the dust from getting into the atmosphere, and large roomy, airy sheds would do much towards fighting the prevalence of the disease. The new sheds, though more comfortable in winter, are not so free from dust as the old-fashioned variety, but the medical officer of health thinks they are really better than the old ones, because of the men's immunity from chills and draughts. There is no doubt that masters would coöperate with the men, and would welcome any scheme by which the men's health would be improved. In the opinion of one of the workers, who takes a keen interest in the matter, what the men really want is the interference of a Government Department to make regulations with regard to the dust problem. The men will not wear the big "air veil" because of its size and clumsiness. The respirators they might wear if they were not clumsy, and the piece of cotton-wool over the nostrils and mouth idea commended itself as effective and simple. The true remedy in his opinion, however, lay in prevention of dust getting into the atmosphere.

Medical Service in the Highlands.

At a meeting representative of the various public bodies in Orkney held on Jan. 9th, to consider the replies to the schedule issued by the Highlands and Islands Medical Service Board, it was unanimously agreed to ask for a grant to modernise and extend the General Hospital at Kirkwall, and it was also agreed by a majority to ask for grants for a hospital at Stromness and at North Ronaldshay. It was agreed to start a nursing service in those districts where there was no resident medical practitioner. It was also agreed by a large majority that a special board should be created to administer the medical fund locally, this board to consist of a committee of seven members of the county council, who would consult members from parish councils, medical associations, the Insurance Committee, and town councils. The whole scheme was remitted to the county councillors on the committee for final adjustment, when an estimate of the total cost will be forthcoming. On Jan. 9th at Inverness a conference was held of the various bodies in the county of Inverness specially interested in the question of medical service. Over 100 representative delegates from the mainland and islands were present. The needs of the districts were fully discussed, and the opinion of the majority was that provision should be made for a number of medical men, sufficient for the various districts of the county, with adequate accommodation and means of travelling to the various parts of their districts; provision for consultation between medical men in serious cases and for specialised service; and provision for hospitals and nursing services at suitable centres, for means of communication between medical men and hospitals in scattered districts, and for conveyance to hospital. A protest was entered against remitting to the districts to deal with the question, as against a central committee, but the majority seemed in favour of dealing with the medical board as districts.

Jan. 13th.

IRELAND.

The National Insurance Act.

EACH doctor on the panel in Ireland has received a letter from the National Health Insurance Commission (Ireland), dated Jan. 6th of this year, pointing out, in reference to the term of agreement for certification which expired on Jan. 14th, that the Commission, in view of the negotiations at present in process, propose to continue the existing panel arrangements up to the end of the financial year—March 31st, 1914—on the terms and conditions mentioned in the previous agreement, and the Commission would be glad to learn if the panel doctors are willing to continue to serve for this further period. Further, it is announced that steps are being taken to have payment made to the several panel doctors for the services already rendered by them.

Association of Tuberculosis Officers.

A meeting of Irish tuberculosis officers was held

recently in Dublin for the purpose of forming an association. It was unanimously decided to form such an association, its object being to examine the various problems arising in connexion with tuberculosis, and to protect the interests of the members. Mr. A. Lanigan O'Keeffe, of co. Tyrone, was elected chairman, and Mr. P. J. Burke, of co. Sligo, and Mr. M. Quinlan, of co. Kerry, joint honorary secretaries.

Military Distinction for an Irish Practitioner.

Mr. Charles Ronayne, of Youghal, co. Cork, served in the French lines as surgeon to an ambulance during the Franco-Prussian war, and the French Minister for War recently intimated to him that he intended conferring on him a medal in appreciation of his services. The medal was handed to the British Ambassador at Paris with a request that he would have it forwarded to Mr. Ronayne. Accordingly in due course the medal was presented to him by the French Consul at Dublin. Mr. Ronayne put himself in communication with the Secretary of State for Foreign Affairs, who, in reply, informed him that the King had been graciously pleased to allow him to wear the medal.

The Late Dr. C. J. Clibborn.

The death occurred suddenly on Jan. 4th of Dr. Cuthbert J. Clibborn, formerly a medical inspector of the Local Government Board of Ireland. He was 68 years of age. Born of an old Quaker family of the co. Westmeath, he was educated at Trinity College, Dublin, where he graduated M.B. in 1869. He subsequently practised in co. Wicklow. On his appointment as an inspector of the Local Government Board he was stationed in Belfast, and had charge for some time of the whole province of Ulster. At a later date it was found necessary to make the areas of inspection smaller. He retired from office three years ago. Dr. Clibborn was much respected as an official both by the members of his own profession and by the general public.

The Late Dr. J. C. Ferguson.

It is with sincere regret I announce the sudden death on Jan. 6th of a well-known and highly respected Belfast dispensary doctor, Dr. James C. Ferguson, at the comparatively early age of 58 years. His most intimate friends and relatives had not the slightest suspicion that he was in any way the subject of organic heart disease. Dr. Ferguson was born at Doagh, co. Antrim, where his father was a much respected surgeon. Having decided to follow in his father's footsteps, Dr. Ferguson studied at Queen's College, Belfast, where he had a most excellent record, and in 1884 he graduated M.D. and M.Ch. of the late Royal University of Ireland, while in the next year he obtained the M.A.O. degree. The following year he was appointed resident medical officer in the Belfast union infirmary, and in July, 1888, he was selected as dispensary medical officer of Dock ward, while a few years ago he was transferred to the Ormeau ward district, of which he was dispensary medical doctor, and registrar of births, deaths, and marriages of No. 6 district. He was also physician to the Ulster Hospital for Women and Children. He was a great favourite with all in the Poor-law service. At a meeting of the Belfast local medical committee a special vote of condolence with Mrs. Ferguson was passed, on the motion of the chairman (Sir John Byers), seconded by Sir Alexander Dempsey.

Jan. 13th.

PARIS.

Insanity Statistics in Paris.

Dr. Auguste Marie, medical director of the Insane Asylum of Villejuif, has published some interesting statistics of insanity in Paris with special reference to occupation. The classification made by Parchappe some 50 years ago has long held sway. According to it the liberal professions always furnished the greatest number of insane; then in decreasing order came soldiers, sailors, domestic workers, people of private income, landowners, industrial workers, agriculturists, merchants, and tradespeople. Social evolution, by modifying the conditions of various occupations, has brought about important changes in this order, which, however, are not always the same in all countries. Among professional men the intoxications play a daily increasing rôle, while general paralysis consequent on syphilis claims more and more numerous victims among the middle classes and the rich, whatever their occupation. Dr. Marie's statistics deal with the cases of mental alienation observed recently in the population of Paris, and confirm this evolution; and the interesting point is the recorded percentage borne in each occupation in comparison with that of the total population. In stone-working trades, which furnish a considerable and altogether unexpected percentage, 492 insane are found out of 24,012 workers, or 2·04 per cent. In occupations dealing with the animal kingdom (drivers and stock-raisers) are found 671 insane out of 57,891, or 1·17 per cent. In chemical industries, or from lead intoxication, 649 cases of insanity in 63,220 persons, or 1·02 per cent. Among *commis-voyageurs* there are 1072 insane out of 37,398 persons who make their living thereby, or 2·85 per cent. The liberal professions and sedentary commercial occupations, which formerly headed the list, now give only 1·02 per cent. The occupations least affected by insanity are industries connected with the timber trade, with transport, and with alimentation, whose percentages vary from 0·48 to 0·85. On the whole, the class of workers is much more affected with dementia than used to be supposed before statistics were collected on this principle. Dr. Marie, it is true, includes in insanity very diverse mental ailments which were not formerly comprised therein when only dementia pure and simple was recorded; for instance, he includes in his statistics mental debility, mania, melancholia, enfeeblement of intellect, alcoholic insanity, and parasyphilis. The rôle played by alcoholism in the genesis of dementia in France is considerable, and is continually increasing in all the asylums in the country. Dr. Marie records a very curious new observation, viz., the increase of cases of madness in the various industrial occupations, due to the excitement of social conflicts and the Syndicalist struggle. The degenerates, who are to be found in all classes of society, accentuate the tendency to violence. Some of this class were found among the Post-office employees at the time of the strike of 1908–09. These were really feeble-minded persons, victims of moral shock due to the perturbations and diverse mental preoccupations occasioned by the strike. Dr. Marie thinks that these troubles may convert such subjects into leaders or inspirers of violence, such as is general enough in strikes, especially when accompanied by alcoholic excitement. He does not assert that all the leaders are of this class, though a certain number of them are.

With native gallantry he forbears to make any allusion to women in this connexion.

A Double Xiphopagous Monster.

Dr. Le Filliâtre recently presented to the Académie de Médecine a double xiphopagus of the female sex, born on Nov. 27th. The two girls, who are in good health, are united at the base of the sternum by a fleshy cylinder which appears to enclose above a sort of semi-rigid bridge and below two parallel fibrous tracts. Radioscopic examination, after ingestion of bismuth by one of the children, shows that the digestive canals are independent of one another, although in the fleshy part there is a canal which brings the two abdominal cavities into communication, by which the alimentary tube passes at times, when contractions occur, out of the abdomen of one child, causing a hernia into the other child, and even reaching to its liver. It cannot be said that any union between the two livers, such as has been found previously in such monsters, exists. A special interest attaches to this case, inasmuch as all those hitherto described were anterior to the discovery of radioscopy of the alimentary canal by the use of bismuth. The operation to separate the children has not yet been performed (though it does not seem to present any serious difficulty) because one of the children is affected with umbilical suppuration, no doubt extending to the umbilical vein. This constitutes a condition of infection unfavourable to present surgical intervention. Meanwhile, several examinations have been made, which have led to curious results. Blood examinations show a great difference in the cytologic condition of the two children; the erythrocyte and leucocyte counts, the pulse beats, even the temperature records, differ considerably in the two bodies, showing that the circulations are independent, at least in their larger passages. The child affected with umbilical suppuration shows a greatly increased leucocytosis over the other, which is easily explainable; but this infection reacts only on herself, and in no way affects the general condition of her fellow. One child may show some slight febrile movement as well as diarrhœa, without the other one suffering any indisposition. There is only one symptom which always extends from one child to the other—insomnia.

A Strike of Medical Men.

The medical men of the Assistance Publique of Toulouse have struck—a sort of "lightning strike"—on the occasion of the renewal of contract with the administration. The latter wished to impose a five years' term, at the expiration of which it should have the option of renewing or terminating the contract. The medical men have demanded, in order to free themselves from the political influences that so often preponderate in municipal administrations, that the non-renewal of the contract, which is practically equivalent to compulsory retirement, should be made dependent only on proof of professional incompetence or serious wrongdoing. The administration, of whose political motives there can be no doubt, refused to accept this condition. The entire medical corps of the Assistance Publique thereupon resigned, and thanks to the solidarity of the Toulouse syndicate of medical men, no one could be found to replace them. It is likely that the intervention of the prefect will bring the administration to a more conciliatory attitude, in view of the complete unanimity of the medical profession, which deserves the highest praise.

Muscular Exertion at Great Altitudes.

M. Vallot and M. Bayeux have presented to the Académie des Sciences an interesting communication concerning the relations of muscular exercied to altitude. They made use of a squirrel confines in a rotary cage, and were able to determine that the animal at the sea level made 6700 turns of the wheel a day. After this fact had been established by repeated observations the animal was taken in his cage to the summit of Mont Blanc, at which altitude it made only 900 turns a day. When brought down to the plain it made 5000. This experiment clearly shows that the fatigue felt on muscular work by Alpinists is not solely due to the exertions of climbing, even though they take a considerable part in it. As a matter of fact the person or animal transported without fatigue to the summit finds himself in a medium in which the rarefaction of the atmospheric pressure and the diminution of oxygen are sufficient to diminish muscular energy. Similar observations have been made on the men, horses, and mules which work in the cordilleras of the Andes.

Jan. 12th.

BERLIN.

End of the Battle of the Clubs.

THE battle of the clubs has fortunately now come to a peaceful, although not absolutely satisfactory, end.[1] Until the closing days of last year it seemed quite unlikely that an agreement between the two opposing parties could be reached, as all the negotiations had been discontinued and the clubs as well as the medical profession had taken the necessary steps to meet the case of an impending strike. The Government had also given instructions dealing with that contingency, as described in my letter of Dec. 24th.[2] As late as Dec. 18th, however, Professor Passow, dean of the medical faculty of the University of Berlin, together with two other members, Professor Kraus, the well-known director of the medical clinic, and Professor Orth, the successor of the late Professor Virchow, approached the Government, expressing the hope that in the interest of the public health another attempt to reconcile the clubs and the medical profession should be made. The three members of the faculty, together with the Berlin members of the committee of the Leipziger Verband, then had an interview with the Imperial Secretary of State for Home Affairs and three of the Prussian Ministers of State, with whom some preliminary questions were discussed. A meeting was then convoked of delegates of the associations of the clubs and of the profession, especially of the Leipziger Verband, and after lengthy discussions under the presidency of the Secretary of State for Home Affairs an arrangement was finally agreed upon by both parties. The principal items are as follows. Medical men desiring to treat club patients must register themselves at the local insurance office; only those who have registered may be admitted, except those who have at the time of this agreement already been engaged in club practice. The choice of the candidates is made by a joint commission composed of representatives of the club and of the medical men. In cases where the free choice system is not agreed to by a club, at least one medical man must be admitted for each 1350 members of the club. The question of fees is to be settled by local arrangement. When the two parties fail to come to an agreement a court of

[1] THE LANCET, Jan. 3rd (p. 61), and 10th (p. 137), 1914.
[2] THE LANCET, Jan. 3rd, p. 66.

arbitration, presided over by the director of the district insurance office, will have to decide the matter. The system of medical attendance, either the free choice system or any other system which has been hitherto in force in the respective clubs, will continue, unless both parties agree to a modification. The most difficult point was what would be done with the medical men who had been appointed by the clubs during the present conflict for the purpose of replacing in the case of a strike the medical men hitherto engaged in club practice. During the discussion it became evident that the number of medical men willing to act against their professional brethren was a relatively small one, the figures given during the battle by the clubs being erroneous, as the same medical men had applied for all the club appointments announced in the papers. It was ultimately agreed that both parties would coöperate in inducing those men to renounce their contracts. The necessary allowance will be paid to them by the Leipziger Verband, but the clubs will pay in localities where such strike-breakers were appointed an additional sum of 5 pfennig for each member of the club, this sum being for the purpose of repaying to the Leipziger Verband a part of the amount paid by them. A central committee under the presidency of the Imperial Secretary of State for Home Affairs will settle any dispute which may arise out of the arrangements to be made. The agreement will be in force for ten years and continue if no notice is given for another year, and so on from year to year. The above agreement is, of course, far from meeting all the demands of the profession, especially as the free choice system is left as it has hitherto been—namely, to the goodwill of the individual club; also the question of fees is not settled. The principal improvement compared with the present state of things is that the undignified canvassing for club appointments will be done away with by the system of registration of candidates, and that the appointments will be made by a joint committee representing both the clubs and the medical men. It is in every way highly satisfactory that the strike has been avoided.

Experimental Production of Rickets.

Professor Koch, of the Institute for Infectious Diseases, lately reported experiments made to produce rickets in dogs. He said that in the joints of children who have died from infectious diseases such as diphtheria, scarlet fever, measles, gastro-enteritis, &c., indications of incipient rickets were often found at the necropsy. This led him to believe that rickets might possibly be of infectious origin. He accordingly made an intravenous injection of a culture of streptococci, the result being that after a period of incubation varying from one to three days there developed a swelling of and an effusion free from cocci into the joints. No suppuration ensued, but there was a thickening of the epiphysis. After about eight or ten days the condition became apparently normal, but disturbances of growth became visible, which were very like rickets; the symptoms were genu valgum, genu varum, "the rickety rosary," thickening of the skull, and others. Professor Koch showed a series of dogs in which the above symptoms could be ascertained, and he stated that the dogs had been kept in healthy kennels and fed on good food, so that the influence of general unhygienic factors could be excluded.

International Exchanges of Assistants in Clinics.

An exchange of professors of all faculties has existed between the universities of Germany and those of the United States of America for some years. Recently an arrangement has been made for the purpose of exchanging also assistants of medical clinics, the first instance being an exchange between the surgical clinics of the Johns Hopkins University in Baltimore, under Professor Halsted, and the surgical clinic of the University of Breslau, under Professor Küttner; when Dr. Landois, of Breslau, will go to Baltimore, and Dr. George Heuer, of Baltimore, to Breslau.

Unusual Muscular Strength.

Dr. Zehden recently showed before the medical society a performer in a Berlin circus who is able to increase the length of his body by 20 centimetres. By three years' training he had developed his muscles so that he could stretch the intervertebral discs and the ligaments and tendons. The stretching was especially visible on the neck and back, where the muscles had become marvellously hypertrophied. He has been able to maintain the stretching for eight hours. The man has the respectable length of 176 centimetres, which after stretching is increased to nearly 2 metres. He has never used a special diet.

Jan. 12th.

Correspondence.

"Audi alteram partem."

THE TREATMENT OF GRANULAR KIDNEY.

To the Editor of THE LANCET.

SIR,—It was with much interest that I read in THE LANCET of Dec. 27th last the Purvis Oration delivered by Dr. Samuel West. I think it will be agreed that the subject of granular kidney has never been more clearly or more ably put. But there are one or two statements in the treatment outlined to which I should like to draw attention, as differing much, I think, from the experiences of others.

Speaking of vascular tension Dr. West states: "It is the tension that determines the use of digitalis. If the tension be raised it will do harm, but if low, and especially if associated with cardiac failure, digitalis is the best drug for the purpose." The inference is that digitalis ought not to be used where the blood pressure is high. Now, as it is the general practitioner who generally has to see those cases through, I think misconceptions may arise through accepting these statements unqualified.

Dr. Price some years ago showed that digitalis does not possess the power of raising the blood pressure. In the experiments he carried out he found that after a course of digitalis there was no rise in the sphygmomanometric readings. If my memory serves me aright, I believe that after the digitalis course in some of the cases the pressure readings were actually lower. Certainly there were no rises. And from observations extending over a large series of pressure readings the same has been my invariable experience—viz., that when the pressure is low, and in consequence a detrimental action is being exerted all over the vascular system, digitalis very probably will help to restore the balance through improvement in the ventricular contractions and prolongation of the diastolic rest; but that, on the other hand, where the pressure is

already high digitalis has no power to raise it any higher.

For some years I have used digitalis in high-pressure cases—pressures varying from 200 mm. to 280 mm. Hg—and in no case have I had any untoward result. By that I mean to say that I have never seen the pressure rise under the digitalis treatment, nor have I seen a single case of cerebral, retinal, or other hæmorrhage during the treatment. I may, of course, have been fortunate in my selection of cases, but I find that what I have stated has been experienced by others as well as by myself.

Practically in every case there has been vast improvement—for a time at any rate. Naturally enough, the time comes when the heart refuses to react to digitalis at all. The doses used were not the minute and generally useless ones so often employed—namely, 3–5 minims of digitalis tincture three times daily (larger doses being so generally supposed to raise still farther an already high pressure) but doses of 15 minims of the tincture every four or six hours until the desired effect is produced. I have found that the better the result from the use of digitalis the healthier the cardiac musculature. Conversely, that the poorer the result from the use of the drug the more fibrotic the state of the cardiac structures.

As the subject is not a brief one, probably an example of a patient seen lately may convey more clearly my contention. On Boxing Day last I was asked to see Mrs. ——, aged 62, who was said to be in distress through her breathing. I found the patient in a state of orthopnœa. The slightest movement in bed increased the severe dyspnœa, showing that the "rest power" (MacKenzie) of the heart was exhausted. The forehead and face were deeply congested, the lips and ears cyanosed. The pulse was 110 and regular, save for a very occasional premature contraction, although premature contractions ought really to have disappeared with the increased pulse-rate. This occurrence is, I think, rare. The apex beat was 3½ inches outside the nipple line, and there was a clear systolic bruit in the mitral area, probably due to dilatation. There was also a systolic aortic bruit and a ringing aortic second sound. The patient complained of a feeling of constriction round the chest. The reading on the sphygmomanometer was 280 mm. Hg (the instrument was standardised and the reading was taken several times at short intervals). The vessels were moderately sclerosed.

This was a case where several things were obvious: (1) the state of the patient demanded immediate relief; (2) the risk of the advent of cerebral hæmorrhage was evident; (3) to have raised the pressure still farther (had such been possible) would have been still farther to court disaster; (4) the reduction of the pressure was imperative as it was above what the patient normally required, and the extra strain was crippling the left ventricle, apart from the other risks run. If, then, "it is the tension that determines the use of digitalis," and "if the tension be raised it (digitalis) will do harm"; if we are to accept these statements, this obviously was a case where digitalis ought certainly to have been withheld. The patient was ordered 15 minims of Parke, Davis, and Co.'s standardised tincture every six hours, along with sharp magnesium sulphate purges, a very limited milk diet, hot mustard foot baths, and a mixture containing spt. etheris, spt. ether. nitros., spt. chloroform., and spt. ammon. aromat., to relieve the breathing temporarily. In 24 hours the pulse was 94; the blood pressure had fallen to 220 mm. Hg, and the greater part of the dyspnœa had vanished. After 48 hours the digitalis was reduced to 10 minims every six hours until the pulse had dropped to 84, and then to 7½ and 5 minim doses until the rate was 76 and 74. On Jan. 6th the pressure was 200 mm. Hg (probably the normal—or necessary—for the patient), and all symptoms had disappeared; the breathing was easy and tranquil; the patient could move with ease; the malar turgescence had disappeared, and the pulmonary œdema was no longer present. This is only one case out of many where I have found exactly the same sequence of events; but it is typical of the group.

I must apologise for this long transgression on your space; but as these cases are numerous and their treatment important, and as general practitioners have to deal with many of them, the subject appears to me to be one of no little importance. Not so long ago it was freely taught that to administer morphia in disease of the kidneys was a dangerous, not to say fatal, proceeding, whereas morphia—and morphia alone—will frequently terminate the dangerous convulsions of uræmia. It seems to me that the fear of giving digitalis in high-pressure cases is on a par with the now known to be erroneous teaching regarding morphia and renal disease. Strophanthus in my hands has been a failure.

In a paper I read before the members of the Hunterian Society last year on this subject there was no exception taken to these statements in the subsequent discussion—probably an indication that the value of digitalis in this type of case is becoming more widely appreciated.

I am, Sir, yours faithfully,

A. GRAHAM-STEWART.

Cliftonville, Margate, Jan. 12th, 1914.

THE STERILISATION OF MILK AND ALLIED QUESTIONS.

To the Editor of THE LANCET.

SIR,—All who have had long and extensive clinical experience in the feeding and rearing of babes must agree with the frank and scientific leading article in THE LANCET (Jan. 10th, p. 118). Dr. J. E. Lane-Claypon's pamphlet mentioned: "They showed in the case of man and the lower animals alike that for the young of a given species there is an undoubted superiority—probably attributed to protein constituents—in milk derived from animals of that species over milk obtained from other species, whether sterilised or not."

In my work on "Feeding and Rearing of Children" (first edition, 1894) I write (Nature's Food, p. 26): "I think myself that among all animals who rear their young by the aid of milk there is a certain protein in the composition of such milk which is especially suitable for the requirements of the young of its species, and if recourse is had to the milk of one animal in order to feed the offspring of another there will be some deficiency in the growth and proper nourishment which soon becomes apparent, unless we can supply by artificial means the ingredient that is missing or deficient."

I may add that at that distant period I searched for

any written opinion on the subject, but was unable to discover any.—I am, Sir, yours faithfully,

THOMAS DUTTON.

New Cavendish-street, W., Jan. 10th, 1914.

To the Editor of THE LANCET.

SIR,—The evidence of the appalling effects of cooked milk upon the infant and child is so overwhelming to those who are in a position to appreciate the facts that it is terrible to think of the masses of children condemned to suffer such a diet. Owing to "the concurrent use of lemon or orange juice" to which you refer, the infant manages to survive only that he may be further plied with a profoundly unwholesome food. Every day I see children as ill as they can well be, with all sorts of mysterious diseases that have baffled their doctors—doctors who are good men at their work but who have not yet managed to grasp the fact that the elemental requirement of the offspring of all mammals is raw milk. It is too great a thing to attempt to cite the evidence in a letter, but I may cite certain documents. 1. Acute Intestinal Toxæmia in Infants, London, 1911. 2. The chapter on "The Bacteriology of Milk" in "The Nutrition of the Infant," London, 1913. 3. The Bacteriology of Alimentary Toxæmia in the Infant and Child.[1]

I may further cite the paper read by me before the New York Academy of Medicine on Nov. 13th, 1913, which is to be published on Feb. 1st, I am informed, in the *American Journal of Diseases of Children*, the title being "The Bacteriological Diagnosis and Treatment of Alimentary Disease in the Infant and Child." In these writings I describe diseased conditions which are of extremely frequent occurrence, and which cannot occur in a child fed on raw milk.

To prevent tuberculosis! Where is the surgeon who will advise a man to have his legs amputated in order that he may escape the danger of slipping upon orange peel? There is a violent contrast between the actual investigations of the Royal Commission on Tuberculosis and the Final Report. The investigations are overwhelmingly in favour of Koch's contentions. For the details I must refer those interested to my article in *Science Progress*, April, 1912, "Fallacies in the Report of the Royal Commission on Tuberculosis." "Fallacies" is a sufficiently mild word in the circumstances, for the Commissioners took the words of their scientific investigator, "bovine tubercle bacilli of human origin,"[2] and changed them into "bacilli of bovine source."[3]

I take this opportunity to express my high appreciation of the valuable contribution to the progress of scientific medicine which Mr. Robert Mond has made in his recent communication to the *Times*. May I be allowed to add a quotation from Robert Koch's address (1901)? "It is well known that the milk and butter consumed in great cities very often contain large quantities of the bacilli of bovine tuberculosis in a living condition, as the numerous infection experiments with such dairy products on animals have proved. Most of the inhabitants of such cities daily consume such living and perfectly virulent bacilli of bovine tuberculosis and unintentionally carry out the experiment which we are not at liberty to make. If the bacilli of bovine tuberculosis were able to infect human beings many cases of tuberculosis caused by the consumption of alimenta containing tubercle bacilli could not but occur among the inhabitants of great cities, especially children. And most medical men believe that this is actually the case.

In reality, however, it is not so. That a case of tuberculosis has been caused by alimenta can be assumed with certainty only when the intestine suffers first—that is, when a so-called primary tuberculosis of the intestines is found. But such cases are extremely rare. Among many cases of tuberculosis examined after death I myself remember having seen primary tuberculosis of the intestine only twice. Among the great post-mortem material of the Charité Hospital in Berlin ten cases of primary tuberculosis of the intestine occurred in five years. Among 933 cases of tuberculosis in children at the Emperor and Empress Frederick's Hospital for Children Baginsky never found tuberculosis of the intestine without simultaneous disease of the lungs and the bronchial glands. Among 3104 necropsies of tuberculous children Biedert observed only 16 cases of primary tuberculosis of the intestine. I could cite from the literature of the subject many more statistics of the same kind, all indubitably showing that primary tuberculosis of the intestine, especially among children, is a comparatively rare disease, and of these few cases that have been enumerated it is by no means certain that they were due to infection by bovine tuberculosis."

I am, Sir, yours faithfully,

RALPH VINCENT,

Senior Physician and Director of the Research Laboratory, the Infants' Hospital, London.

Harley-street, W., Jan. 10th, 1914.

[1] Proceedings of the Royal Society of Medicine, May, 1913.
[2] Final Report, Part 2, Appendix, Vol. I., p. 532.
[3] Second Interim Report, p. 28.

TREATMENT OF GASTRIC AND DUODENAL PERFORATION.

To the Editor of THE LANCET.

SIR,—In THE LANCET of Jan. 10th there appeared a paper by Mr. Edred M. Corner on this subject, in which the writer recommended a form of operation which, to my mind, is only justified on the rarest occasions.

Whilst in the title of the paper both gastric and duodenal perforations were included, in the text no direct reference was made to the latter type of case. Any form of operation which involves the establishment or even the risk of a duodenal fistula is essentially a bad operation, for there is no more rapid form of what may be called physiological death than that resulting from duodenal fistula.

It is reckoned that not less than five or six pints of fluid secretions are poured into the duodenum and reabsorbed lower down in the intestine in the 24 hours, and the rapid emaciation which follows the loss of even part of this secretion is very striking. In the Edinburgh statistics on 200 cases of perforated duodenal ulcer[1] there were three cases in which the perforation was not closed at the operation, but merely drained to the exterior. "All three cases died within a few days with rapid emaciation and asthenia, illustrating how imperative it is that the perforation be closed in one way or another at the operation." Whilst this danger does not exist in the case of gastric fistulæ, there are as rapid, and certainly cleaner, ways of dealing with the perforation than by tamponade.

In cases where the gastric wall around the perforation is so indurated and œdematous that invagination is impossible, the opening may be closed by a

[1] Edinburgh Medical Journal, November, 1913.

plug of omentum, as first recommended by Bennett.[3] In the rare cases of perforated duodenal ulcer in which invagination is impossible the same method may be employed or the gall-bladder may be stitched over the perforation. If the patient be submitted to operation within a few hours of the perforation all elaborate methods for draining the abdomen with gauze packs, &c., are unnecessary and may be harmful.

The dramatic onset of the illness in these cases rarely leaves any doubt as to the diagnosis; therefore an incision should first be made in the upper part of the abdomen to gain access to the perforation. This should be closed by invagination if possible, and where this is not feasible by an omental plug or stitching to a neighbouring viscus. If there has been much escape of gastric or duodenal content a tube may be inserted into the pelvis through a suprapubic stab-wound and the upper wound closed. If little escape has occurred the peritoneum may be left to look after itself and the abdomen may be completely closed. Such an operation takes no longer than that advocated by Mr. Corner, and the after-treatment of the case is much simpler—an important point where the patient is in a private house or at some distance from the medical man.

I am, Sir, yours faithfully,

Edinburgh, Jan. 12th, 1914. D. P. D. WILKIE.

ANTS AS TRANSMITTERS OF TROPICAL DISEASE.

To the Editor of THE LANCET.

SIR,—The annotation entitled "Ants as Transmitters of Tropical Disease," which appeared in THE LANCET of Jan. 10th, serves a useful purpose in directing attention to a matter which is possibly of very considerable importance, and which until recently had not received the attention it appears to merit. You kindly mention the suggestion I made in 1908 and refer to the interesting work of Dr. Bates on the mechanical transmission of B. typhosus and B. dysenteriæ by a species of large ant in the Canal Zone. I would like to mention that it was Dr. S. T. Darling who re-directed attention to this question, and that Messrs. Bates, Jacob, and Jennings carried out the necessary tests under his direction.

Dr. Darling's paper, which appeared in the Transactions of the Fifteenth International Congress on Hygiene and Demography, is entitled "The Part Played by Flies and other Insects in the Spread of Infectious Diseases in the Tropics, with Special Reference to Ants and to the Transmission of Tr. Hippicum by Musca Domestica."

I had hoped to carry out at Khartoum experiments on the lines of those conducted by Dr. Bates and his colleagues, but was unable to do so. At the same time I made one observation which is of some interest, and to which I think I once referred at a meeting of the now defunct Society for the Destruction of Vermin. A species of large ant in the Sudan has a great liking for urine. It haunts chamber-pots. This idiosyncrasy is not to be explained by a mere love of fluid, for if urine be allowed to dry in a vessel the ants are almost certainly to be found crawling over the dry uratic deposit which in the tropics so often results. I am inclined to think that urea has a special attraction for them, though no doubt liquid and moisture also entice them.

This being so, it is possible that in certain cases ants might transmit the Micrococcus melitensis in food such as milk or cheese. In the same way B. typhosus might be carried from the urine by these insects. It is not very likely that either of these accidents happens in nature, but it is worth while keeping the possibility in mind, for sometimes isolated sporadic cases of undulant fever and enteric fever crop up and are very difficult to explain. In any case, it is to be noted that urine and urinary deposits serve to attract a species of large ant which is very common in Khartoum, but the scientific name of which I have unfortunately forgotten. I am, Sir, yours faithfully,

ANDREW BALFOUR.

Wellcome Bureau of Scientific Research, Wigmore-street, W., Jan. 13th, 1914.

[3] THE LANCET, August 1st, 1896.

THYROID SECRETION AND ANTITOXIN.

To the Editor of THE LANCET.

SIR,—In reference to my article entitled "The Relation of the Thyroid to Antitoxin," which appeared in THE LANCET of Dec. 27th, 1913, I am informed by Dr. A. T. MacConkey that he does not use potassium mercuric iodide as an antiseptic, and that as regards the sera supplied by the Lister Institute, any iodine present cannot be accounted for in this way. In the annotation upon the same subject, which appeared in the same issue, "the toxic effects induced in rabbits by injection of antitoxic serum," should read, "the toxic effects induced in rabbits by *feeding* with antitoxic serum."

I am, Sir, yours faithfully,

RUPERT FARRANT.

Queen Anne-street, Cavendish-square, W., Jan. 7th, 1914.

THE PATHOLOGY OF RHEUMATOID ARTHRITIS.

To the Editor of THE LANCET.

SIR,—I have read with much interest the letter on this subject contributed by Dr. P. W. Latham to THE LANCET of Jan. 10th. In the second column on p. 145 and on p. 146 he expresses his opinion that the presence in the blood and tissues of the "products of imperfect metabolism of muscular and other tissues" "imperfectly excreted" enable micro-organisms otherwise avirulent to become pathogenic, and so cause arthritis. My experience of fibrositis—and periarthritis and many conditions at present described as rheumatoid arthritis are forms of fibrositis—has led me to the belief that not only does imperfect elimination of waste matter enable pathogenic organisms to develop and become virulent, but that these materials are sufficiently toxic to be themselves a cause of fibrosis and fibrositis. I have dealt with this in some detail in a paper published in the Transactions of the Royal Society of Medicine (Balneological Section, April, 1913), entitled "Daily Habits in Civilised Life as Factors in the Causation of Fibrositis," and hope with your permission to present certain aspects of it to your readers at an early date. If the view thus expressed is correct, in all conditions of chronic arthritis and fibrositis, and possibly in most diseases of middle and later life, the vitiation of the blood and tissues caused by imperfect elimination of waste products—a condition I have ventured to name "dyscatharsia"—is a very important, if not the most important, factor.

In recent years in the study of the seeds of

disease too little attention has been paid to the soil, especially to the soil of the adult, modified as it necessarily is by the habits and environment of years.

I hope Dr. Latham will be able to publish at an early date his promised further contribution on this subject. I am, Sir, yours faithfully,

Llandrindod Wells, Jan. 13th, 1914. R. ACKERLEY.

DISLOCATION OF THE PROXIMAL PHALANX OF THE GREAT TOE.

To the Editor of THE LANCET.

SIR,—I was called a few days ago to a miner who had been caught by the trouser pocket by a revolving wheel and swung violently round the room. His injuries consisted of skin scratches in various parts and a dorsal dislocation (easily reduced) of the proximal phalanx of the great toe on one foot. At the time of the accident he was wearing the heavy boots common to miners.

The case is interesting in connexion with that mentioned by Dr. Henry Robinson in his letter in your columns last week and your previous annotation. I am, Sir, yours faithfully,

GEORGE F. RIGDEN, M.B., B.S. Lond., M.R.C.S., L.R.C.P.

Cinderford, Glos., Jan. 10th, 1914.

IMPROVEMENTS IN THE NAVAL MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—The recent alterations and improvements in the Naval Medical Service announced in your Service news have been long asked for.[1] I think it would have done more good to recruiting had better pay been given, particularly increased pay for higher qualifications—1*s.* a day for each extra qualification obtained within the first ten years of service, 2*s.* for each obtained in the next ten (to encourage officers to go through courses when they are becoming rusty), and 2*s.* 6*d.* for any obtained after 20 years. Executive officers who get higher qualifications are paid better—from 1*s.* 6*d.* to 4*s.*—as gunnery, torpedo, or navigating officers, although they get their education at the public expense.

I am, Sir, yours faithfully,

Jan. 10th, 1914. FLEET-SURGEON, R.N.

THE NATIONAL INSURANCE ACT: THE SURPLUS FUNDS.

To the Editor of THE LANCET.

SIR,—Reading in THE LANCET of Jan. 10th Mr. E. Nundy's letter, and your further comments, on the distribution of unallotted National Insurance funds, I venture to invite your readers to consider a suggestion which I have embodied in a letter to the Insurance Commissioners. It has struck me that part, at any rate, of the unallotted fund, after all doctors have been paid what is due to them, might well be retained as a reserve fund for doctors who have promptly gone to a midwife's assistance, when, owing to the poverty of the patient, there is a difficulty about the fee. The weekly wage of the insured person might be taken into consideration, for those who can afford it are generally found quite willing to pay.

[1] THE LANCET, Dec. 6th, 1913, p. 1549.

The recent case of a patient's death after a midwife had sent for several doctors, and the coroner's remarks at the inquest, is still fresh in our memories, but no one, least of all the midwife, expects a doctor to do arduous work for nothing. Things have made strides since the days of my training, but it may not be out of place to remark here that on one occasion I sent for ten doctors in succession, with refusals from each one, to come to my assistance for a transverse presentation. Happily I had wisely done this early enough in labour that there was no immediate danger to my patient, and ultimately two women doctors arrived with chloroform. I did not blame the doctors then, nor do I do so now; it was midnight, a blizzard, and I, a stranger, calling them to the poorest of tenement houses. Only one or two touched upon the fee question; besides which, each one who refused did not know that nine others would do the same; and I have since known many who rise from their beds to do arduous work without much hope of monetary reward.

Reports of the Central Midwives Board penal cases show how many midwives are removed from the roll for failure to send for medical aid. But, whatever happens afterwards, the Board holds a midwife to be free of blame if, in obedience to the rules, she has called in a doctor on the first recognition of symptoms for which she is forced to send for medical assistance. A reserve fund for adequate payment of doctors when attending very poor cases would benefit both doctors on the panel and those who are not. It would benefit the midwife, who would not hesitate to get help early in labour, resulting in easier work for the doctor who comes to her assistance. It would benefit the poorest of insured patients by relieving them of the anxious worry of another fee to pay, leaving more for nourishment, which, with freedom from worry, might prevent loss of milk, to the benefit of the child. Lastly, it would benefit the State by preserving (who knows) a Prime Minister or a Poet Laureate, and thereby decreasing the infant mortality.—I am, Sir, yours faithfully,

JANET EWART STCLAIR,
Honorary Secretary, Fulham Association of Midwives.

Irene-road, S.W., Jan. 10th, 1914.

CENTENARIANS.—The death is announced at the village of Newcastleton, Roxburghshire, of Mrs. Helen Kerr in her 104th year.—Mrs. Lambert has recently celebrated her 100th birthday at Edmonton.

ROYAL LONDON OPHTHALMIC HOSPITAL.—The eighth annual dinner of past and present students will take place at the Imperial Restaurant, Regent-street, W., on Tuesday, Feb. 3rd, at 7.45 for 8 o'clock, Mr. G. A. Berry, LL.D., F.R.C.S. Edin., in the chair. Each student is entitled to introduce two guests. Tickets (price 10*s.* 6*d.* each, exclusive of wine) may be had on application to either of the honorary secretaries—Mr. Arnold Lawson, 12, Harley-street, W., or Mr. J. Herbert Parsons, 54, Queen Anne-street, W.

THE SOCIETY OF MEDICAL OFFICERS OF HEALTH: SCHOOL MEDICAL SERVICE GROUP.—A general meeting of the North-Western Branch of this body will be held in the Milton Hall, Deansgate, Manchester, on Saturday, Jan. 24th, at 2.30 P.M. Important matters will be considered, such as the improvement of the status and remuneration of the service, consideration of security of tenure in relation to increase of salary, necessity of including public health work to relieve the monotony of medical inspection, and the advisability of forming a north-western branch group of the main group of the society.

THE NATIONAL INSURANCE ACT.

THE MANCHESTER SYSTEM.

IN a recent report of the Medical Committee at Manchester upon the working of the National Insurance Acts for the quarter ending Sept. 29th, 1913, it was stated emphatically that the medical practitioners had carried out their work without friction so far as their patients were concerned, and that relations with pharmacists had been amicable under a serious strain. The same document, however, dwelt upon the inadequacy of the estimates of sickness and the consequent financial difficulty as affecting Manchester, and pointed out that this difficulty arose out of the provision of one fixed sum per head to defray the expense of medical attendance and drugs throughout the country. This flat rate assumed that sickness in Manchester and similar cities and towns would be the same in frequency of occurrence and in seriousness as in rural districts and health resorts, and as in Manchester a system of payment by attendance was adopted the soundness of the official estimate as applied to the health of such a population has been put to a practical test. The result shows up to the present that the money available is insufficient, and the sufferers are likely to include the medical practitioners, the pharmacists, and the Approved Societies, these last being able, to some extent, to do what the others cannot—namely, to recoup themselves in healthy areas for their losses where sickness is more prevalent. As a remedy for the difficulty, and in order to restrain any tendency on the part of the medical profession to respond unnecessarily to claims for their attendance, as well as to keep the number and cost of prescriptions as low as possible, the following conditions are proposed for the regulation of medical attendance and the provision of medicines at Manchester:—

1. The Panel Committee shall ascertain from the monthly accounts rendered by practitioners the average cost per patient in respect of the treatment given by each practitioner during each month, and may, if they so think desirable, take the general average cost per patient in respect of the treatment given to the whole of the patients within the area of the Insurance Committee for each monthly period as the basis upon which the amount to be credited to each practitioner shall be determined, provided that, if the Panel Committee so think desirable, such amount shall not exceed in the aggregate a sum of £800 per annum.

2. The Panel Committee shall ascertain from the monthly accounts rendered by (*a*) practitioners and (*b*) chemists and contractors undertaking to supply drugs and appliances, the average cost per patient, the average value per prescription, and the average number of prescriptions per patient in respect of the prescriptions given by each practitioner during each month, and may, if they so think desirable, take the general average cost per patient, the general average value per prescription, and the general average number of prescriptions per patients (or any of them) in respect of the prescriptions given to the whole of the patients treated within the area of the Insurance Committee for each monthly period as the basis upon which deductions to be made from the amounts payable to practitioners shall be determined.

Our Manchester correspondent (see p. 205) reports willingness among medical men to agree to these terms, which not only mean the cutting down of every income derived from panel work to £800 or less, but impose a limit on the free choice of a medical attendant, which has been claimed on behalf of patients by the medical profession.

THE QUESTION OF DRUGGISTS' CHARGES AT SALFORD.

At Salford the Insurance Committee has had the same difficulty as the Manchester Insurance Committee in endeavouring to meet the cost of prescriptions under a system of payment by attendance. A letter to the Insurance Commissioners stating that the sum at the disposal of the Committee only enabled it to pay 70 per cent. of the chemists' charges brought a reply to the effect that the deficiency seemed to be due to the number, not the nature, of the prescriptions given, and that if this state of things was traceable to the special arrangements made in Salford the medical profession and the druggists must arrange the matter between them before the Commissioners could approve a continuance of the special arrangements referred to. A proposal made on the basis of an agreement arrived at between the medical men and the pharmacists failed later to secure the approval of the Commissioners as not coming within the Regulations, and the situation appears now to be that the pharmacists sign contracts for another year on the understanding that a scheme in substance the same as that mentioned shall be worked under Rules 39 and 40 of the new Regulations, and presumably the strict exercise of the powers given by these two rules to panel committees will to some extent have the effect desired. It is not suggested that the patients at Manchester or Salford have had anything to complain of. It is evident they have not expressed dissatisfaction at excess of medical attendances or medicines, and it is yet to be seen whether the proposed curtailment of both will meet with their approval. It must be said at the same time that the figures recently published at Salford show a deficit even more formidable than that referred to above. The sum available to Nov. 14th, 1913, was £6833, to meet claims amounting to £10,000—i.e., very little more than two-thirds. It may also be added that hard things have been said by members of the Salford Insurance Committee against some of the medical men alleged to have prescribed excessively. Their conduct has been contrasted with that of the majority of their colleagues, and the possibility of obtaining their removal from the panel has been distinctly hinted at.

LEICESTER INSURANCE COMMITTEE: THE UNALLOTTED FUNDS.

The Leicester Insurance Committee has a balance in hand of £1500 available for medical benefit, and the Medical Subcommittee has recommended its distribution between the practitioners on the panel in accordance with the number of patients on their lists. At a recent meeting of the committee the matter was referred back for further consideration after a member of the committee, Mr. T. F. Richards, had advanced the opinion that the distribution proposed would be "a bonus for something the doctors had not done," and recommended the expenditure of the money in sanatorium benefit. The injustice and misunderstanding involved in such a contention cannot be too emphatically pointed out. Whatever may be the legal position with regard to surplus medical funds, they were contributed by employers and employed under legal compulsion as payment to the medical profession for medical benefit. Every insured person, well or ill, has had in return for the promise of the money in question medical

attendance as his right throughout. The money was promised to the medical men serving on the panels, and it was agreed by the medical profession to accept a rate of payment which would have been inadequate if every insured person was to be a patient requiring medical attendance, on the ground that many would not, in fact, need medical aid, and that their money would go towards paying for those who did.

A MEDICAL INSTITUTE REJECTED BY THE COMMISSIONERS.

The Boston Medical Institute appears to be an organisation established by the local Approved Societies of the district in order to provide medical attendance for persons not coming under the National Insurance Acts, but will accept transference to it of insured persons willing to be so transferred. The Insurance Commissioners have refused, however, to accept the Boston Medical Institute for recognition under the Insurance Acts on the ground that it was not in existence when the Insurance Act, 1911, was passed, and the medical men practising upon the panel within the district from which the institute draws its members are to be congratulated. Working men will in time recognise generally the badness of the policy of sacrificing the medical attendance provided by the Insurance Act in favour of the medical attendance provided by such institutes.

BOROUGH OF LAMBETH INSURANCE PRACTITIONERS' ASSOCIATION.

At a meeting of the executive committee of this association, held on Jan. 6th, at Stockwell, Mr. J. Fleming in the chair, the proposed action of Mr. Nundy against the London Insurance Committee was considered and discussed. The following resolution was passed unanimously:—

That this meeting of the Borough of Lambeth Insurance Practitioners' Association executive committee desires most strongly to dissociate itself with the proposed legal action which Mr. Edward Nundy, of Tooting, contemplates entering into against the London Insurance Committee. This meeting considers such action detrimental to prospects of amicable settlement and inadvisable, as likely to lead to many unforeseen complications.

The secretary was instructed to forward copies of this resolution to Mr. J. A. Dawes, M.P., chairman of the London Insurance Committee, Mr. Thomas Batey, the Chancellor of the Exchequer, and the Insurance Commissioners, also to write to Mr. Nundy expressing the views of the meeting. The meeting considered that if any legal action became necessary the proper body to undertake it was the Panel Committee.

THE TUBERCULOSIS DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.—Owing to the growth of work in this new department the following additional medical inspectors have been appointed—namely, Dr. Frank Seymour, Dr. J. P. Candler, and Dr. A. S. McNalty.

LIVERPOOL HEALTH DEPARTMENTS. — Major C. E. Norton, of the Local Government Board, held an inquiry on Jan. 13th at Liverpool into the application by the Liverpool city council for power to borrow money for the erection of a building to accommodate the departments of the city bacteriologist and city analyst. It is further proposed to make provision in the new building for the school of hygiene of the University of Liverpool.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS OF LONDON AND SURGEONS OF ENGLAND.—At the First Professional Examination of the Conjoint Board, held on Dec. 30th and 31st and Jan. 1st and 2nd the following candidates were approved in the under-mentioned subjects:—

Chemistry and Physics.—Ewart Gordon Anderson, New Zealand and London Hospital; Hector Demetrius Apergis, Guy's Hospital; Finlay Cameron, Charing Cross Hospital; Victor Daniel Corbett, London Hospital; Edwin Stowell Gawne, Liverpool University; Ralph Byron Gibson, Sheffield University; George Raymond Hubbard, Guy's Hospital; Alfred Eric Parkes, St. Bartholomew's Hospital; Kenneth Stuart Procter, Charing Cross Hospital and King's College; Owen Alfred Llewellyn Roberts, St. Mary's Hospital; Philip Edgar Robinson, King Edward's School, Birmingham; Henry Mearns Savery, Middlesex Hospital; Kenneth Eden Shellshear, St. Bartholomew's Hospital; and Howard Branston Troup, Hugh Pennefather Warren, and Herbert Edward Williams, London Hospital.

Chemistry.—Richard Ambler, Middlesex Hospital; Hussein Amin, Cairo and St. Bartholomew's Hospital; Herbert Claude Apperly, South-Western Polytechnic; Charles Joseph Christopher de Silva, Liverpool University; Bryan Osmond Dewes, Polytechnic Institute; Edward Francis Gillett, St. Mary's Hospital; John Reginald Houghton, Manchester University; Archibald Magill, Otago University and Guy's Hospital; William Percival Nelson, Birmingham University; Charles Farrell Rainer, London Hospital; and Douglas Rhys Thomas, St. Bartholomew's Hospital.

Physics.—Cecil Vincent Brown, Guy's Hospital and Polytechnic Institute; Harold Charles Clifford-Smith, Charing Cross Hospital and King's College; Horace Silva Drabble, Sheffield University; Abd el Hamid el Rakshi, King's College; John Hollings, London Hospital; Reginald Edward Jenkins, London Hospital; Henry Alfred Connor Kite, University College; Lillian Lowenstein, School of Medicine for Women; Alfred Yaphet Massouda, King's College; Gordon Millar, St. Bartholomew's Hospital; Arthur Rupert Moxsy, St. Mary's Hospital; and Bertie Moorwood Tonkin, Guy's Hospital.

Biology.—Ewart Gordon Anderson, New Zealand and London Hospital; Gerald Arthur Augustine Bradnack, Guy's Hospital; Harold Charles Clifford-Smith, Charing Cross Hospital and King's College; Victor Daniel Corbett, London Hospital; Mohamed Ahmed El Dardiri, King's College; Edwin Stowell Gawne, Liverpool University; Rupert Vaughan Hudson, Middlesex Hospital; Reginald Edward Jenkins, London Hospital; Frank Lawrence, South-Western Polytechnic; John Stuart Lewis, St. Mary's Hospital; Pierce Lloyd-Williams, Middlesex Hospital; Harold Octavius Long, Guy's Hospital; Walter Harry Maudling, King's College; Akinlawon Babatunde Olumuyiwa, St. Mary's Hospital; William Griffith Owen, London Hospital; Arthur Leslie Packham, L.D.S. Eng., Birkbeck College; Alfred Eric Parkes, St. Bartholomew's Hospital; Kenneth Stuart Procter, Charing Cross Hospital and King's College; John Saunders Lewis Roberts, University College; John Cowan Robertson, Guy's Hospital; Robert James Saunders, London Hospital; Walter Manley Savery, Middlesex Hospital; Ursula Hester Schreiner, Newnham College, Cambridge; Robert Viner Stanford, B.Sc. Lond., M.Sc. Birm., Ph.D. Kiel, University College, Cardiff; Francis Eaton Gordon Watson, St. Bartholomew's Hospital; Geoffrey Winter, Birmingham University; and Bernard Charles Woodroffe, Guy's Hospital.

At the Second Professional Examination in Anatomy and Physiology held on Jan. 1st, 2nd, 5th, and 6th, 75 candidates presented themselves, of whom 42 were approved and 33 were rejected. The following are the names and schools of the successful candidates:—

Willoughby Agar, B.A. Oxon., Birmingham and Oxford Universities; Edward Beric Alabaster, Birmingham University; Frank Macdonald Allchin, Westminster Hospital and King's College; Charles Hunter Donaldson Banks, St. Bartholomew's Hospital; Hugh Stanford Bryan, London Hospital; Arthur Bulleid, Guy's Hospital; Alan Andreas Cockayne, B.A. Cantab., Cambridge University and St. Thomas's Hospital; Walter Tyrrell Cooper, Charing Cross Hospital and King's College; Marcelline de Costa, Ceylon Medical College and University College; Alexander John D'Souza, L.M. & S. Madras, Madras University and Middlesex Hospital; William Felix Eberli, B.A. Cantab., Cambridge University; Charles Arthur Lovatt Evans, D.Sc., University College; William Farquharson, St. Mary's Hospital; Philip Cuthbert Collingwood Fenwick, St. Thomas's Hospital; Frederic Lionel Fonseka, Ceylon Medical College and University College; Maurice Rolfe Vickers Ford, sheffield University; Gloster Tyndall Garraway, London Hospital; Gopalkrishna Ramchandra Gokharkar, L.M. & S. Bombay, Bombay University and Guy's Hospital; Christopher Frank Good, London Hospital; Thomas Sacheverell Greenaway, Westminster Hospital and King's College; Melville St. Clair Hamilton, St. Thomas's Hospital; John Frederic Haynes, B.A. Oxon., Oxford University and St. Bartholomew's Hospital; Charles Guy Hitchcock and Edwin Lancelot Hopkins, London Hospital; Charles Ewart Hopwood, Manchester University; John Morgan Hughes, Middlesex Hospital; Vladimir Kameneff, Moscow and Edinburgh Universities; Paul Rustat Ellis Kirby, University College; Charles Hardiman Laver, Guy's Hospital; Douglas Loughlin, University College; John Morrice Maitland Marshall, St. Bartholomew's Hospital; William John May, London Hospital; Geoffrey Nootl, Guy's Hospital; Thomas Melville Payne, University College, Cardiff; Albert Edward Adrian Poulier, Ceylon Medical College and Middlesex Hospital; Ronald Rees Powell, B.A. Cantab., Cambridge University and St. Bartholomew's Hospital; John Sturges Rawson, King's

College; Mian Mohammad Shafi, London Hospital; Mohamed Tewfik Talaat, Cairo and King's College; Sadanavala Bashiam Venugopal, L.M. & S. Madras, Madras University and University College; James de Silva Wijeyeratne, University College; and Thomas Wilson, Manchester University.

At the quarterly examination in Practical Pharmacy held on Jan. 8th the following candidates were approved:—

Ahmed Abdel-Al, Guy's Hospital; Douglas Reid Alexander, St. Mary's Hospital; Percy William Lavers Andrew, Middlesex Hospital; Arthur Lawrence Anthony, Cambridge University and Guy's Hospital; Harry Arnold Ash, Cambridge University and London Hospital; George Aspinall-Stivala and James Dorington Bangay, St. Bartholomew's Hospital; Sohan Lal Bhatia, Cambridge University and St. Thomas's Hospital; Charles Herbert Carroll, London Hospital; Bernard Stanley Collins, University College; Eleyathamby Coomaraswamy, Ceylon and Middlesex Hospital; Cyril Douglas Day, Cambridge University and St. Bartholomew's Hospital; James Angel Durante, London Hospital; Norman Ernest Farr, St. George's Hospital; Philip Edward Francis Frossard, London Hospital and private study; Mohammad Zaky Hanafy, Guy's Hospital; Edwin Gabriel Harris, London Hospital; Claude Osborne Hudson, Sheffield University; David Rees Jones, Guy's Hospital; Neville Hood Linzee and Francis Oreti MacGibbon, London Hospital; William Henry Marshall, St. Thomas's Hospital; Harold Morrison, St. Mary's Hospital and private study; Richard Harold Cotter Pryn, Guy's Hospital; Ronald Eric Rampling, St. Thomas's Hospital; Pierre François Joseph Louis Rathier du Vergé, Guy's Hospital; Charles Harley Savory, St. Bartholomew's Hospital; Frederick Gilbert Laughton Scott, Oxford University and Guy's Hospital; Lewis Wilton Shelley, Cambridge University and St. Thomas's Hospital; Gordon Ernest Lovell Simons, Guy's Hospital; Henry Laurence Slaughter, St. Thomas's Hospital; Richard Patrick Starkie, Cambridge University and St. Thomas's Hospital; George Sydney Stathers, St. Bartholomew's Hospital; Cecil Pembrey Grey Wakeley, King's College Hospital; Richard Williams, London Hospital; and Maurice Ulick Wilson, Westminster Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—At the Preliminary Science Examination for the Licence in Dental Surgery held on Dec. 30th and Jan. 1st and 2nd the following candidates were approved in the under-mentioned subjects:—

Chemistry and Physics.—Norman Allen, Guy's Hospital; Frederick David Blomfield, Middlesex Hospital; Albert William Ewart Chapple, Royal Technical Institute, Salford; Thomas Frank Preston Thwaites Dennett, Whitgift Grammar School; Jenkin Albert Evans, Guy's Hospital; George Frederick Faustmann, Guy's Hospital; Harold Robert Backwell Fenn, Liverpool University; Edward Foulston, Brighton Technical College; Hyman Fox, Guy's Hospital; David Low Greig, King Edward VII. Grammar School, Stourbridge; Edward Almond Jennings, Wandsworth Technical Institute and London Hospital; Ernest Kopelowitz, Berlin and Guy's Hospital; Cyril Randall Martin, Guy's Hospital; Albert Victor Milton, Leeds University; John Rhys Morgan, Liverpool University; George William Nichols, Royal Dental Hospital; Frederick Robert Salsbury, Guy's Hospital; Frederick Charles Truman, Birmingham Municipal Technical School.

Chemistry.—George Frederick Harry Bloom, South-Western Polytechnic; Albert James Constance, Bristol University; William Ashley Cooper, Birmingham University; Frederick Walter Day, Polytechnic Institute; Cyril Olney Findlay, Taunton School; Oscar King Hardy, Royal Dental Hospital; Eric Rupert Heaton, Birkbeck College; Alan Lethaby Morgan, Bristol University; Withiel Herbert Leslie Phillips, Birmingham Technical School; Wessel Johannes Pretorius, Guy's Hospital; and Herbert Victor Vogt, Guy's Hospital.

Physics.—James Walter Curtis, Royal Dental Hospital; George Harold Danks, Guy's Hospital; Stanley Willoughby Augustus Davis, Bristol University; Geoffrey Deeks and Dudley Charles Eglington, Guy's Hospital; Amos Soden Ford, London Hospital; Philippus Elisa Grobbelaar, Guy's Hospital; Alice Dora Headley, Birmingham University; Charles Luke Highton, Central Technical School, Liverpool; Thomas Sidda Hoyland and Arthur Leonard Minchin, Sheffield University; and David Cornelius Van der Spuy, Guy's Hospital.

At a meeting of Council on Jan. 8th the under-mentioned diplomas were conferred upon the following candidates, who have now complied with the respective by-laws:—

F.R.C.S.—Howard Davidson Harrison, M.B. Toronto, L.R.C.P., M.R.C.S., Toronto University and Middlesex Hospital.

L.D.S.—Sidney Adams, Guy's Hospital; Philip Blake, Royal Dental, Charing Cross, and Middlesex Hospitals; Arnold John Chapman, Guy's Hospital; and Howell Gwyn James, Guy's Hospital.

UNIVERSITY OF EDINBURGH.—At a graduation ceremony held in the M'Ewan Hall on Dec. 17th, 1913, the following degrees were conferred:—

Doctor of Medicine (M.D.).—Norman Hay Bolton, Charles John George Bourhill, George Llewellyn Brunton, George Cruickshank Burgess, Alexander Cosgrove Court, Gerhard Friedrich Flamer, John Hewat, John Percy Litt, William Macdonald, Norman Douglas Mackay, John Sinclair Manson, Ernest Arthur Milner, Arthur Bisdall Moore, Thomas Paterson Noble, Abraham Zadok Phillips, Joseph Robinson, Wyville Smyth Thomson, and Hugh Ballingall Watson.

Bachelor of Medicine and Bachelor of Surgery (M.B., Ch.B.).—E. Allan, G. A. M. Anderson, S. Arnott, Vera N. Bolotine, G. A. Bertwick, H. Boyle, W. T. Brown, J. W. K. Bruce, J. V. Buchanan, W. S. H. Campbell, J. W. Cannon, P. A. B. Clark, J. B. Cook, G. Cromie, J. B. Cunningham, M. F. W. Davidson, W. Duguid, W. B. H. Dundee, B. V. Dunn, J. M. Elliott, A. Eprile, D. Gilmour, C. Gordon, G. R. Grant, D. A. R. Haddon, Julia V. Henslow, H. C. Hinwood, J. H. G. Hunter, R. C. Irvine-Jamal-ud-din, F. N. Johns, R. W. R. Jones, Margretta J. Keers, D. Kerr, J. L. C. Lagois, W. A. Lethem, E. Llewellyn, J. M'Craig, J. S. M'Intosh, B. R. Mackenzie, H. A. Macmillan, Rosanna R. Macmillan, G. M'Neill, D. M'Vicker, J. T. H. Madill, A. C. Mann, J. R. Menzies, S. I. Mitra, S. C. Mitra, J. B. Mitton, H. M. Moir, S. R. Moll, A. J. M'C. C. Morrison, A. H. Murch, B. P. B. Naidu, R. H. H. Newton, K. P. Pannikar, A. E. S. Pattison, M. Plum, E. G. C. Price, J. K. Reid, M. J. D. Roche, J. A. N. Scott, E. A. Seagar, J. Sircar, J. H. Smith, V. R. Smith, R. A. Stark, R. J. Tait, J. S. Tomb, J. Z. Truter, M. B. Walker, J. H. Ward, J. H. D. Watson, W. N. Watson, W. G. Wyllie.

Diploma in Tropical Medicine and Hygiene.—Alfred Maurice Victor Hesterlow.

Sir Thomas Barlow will preside at the annual meeting of the After-Care Association for Poor Persons discharged from Asylums for the Insane to be held at the Royal College of Physicians of London on Monday, Feb. 23rd.

QUEEN'S HOSPITAL FOR CHILDREN.—We are asked to announce that the clinical lecture on orthopædic cases arranged to be given by Mr. A. S. Blundell Bankart on Feb. 3rd will take place instead on Feb. 5th.

Dr. J. Hayward Willett, of Liverpool, has been elected President of the North of England Gynæcological and Obstetrical Society. Dr. Willett is said to be the youngest president the society has elected.

LEEDS GENERAL INFIRMARY.—The statistical tables for the year ending Dec. 31st, 1913, have with commendable promptitude been prepared and sent to the members of the weekly board. The number of in-patients dealt with is in excess of that in any former year. The number of admissions was 8553, and this with the number of patients remaining in the infirmary and the semi-convalescent hospitals—all of whom had passed through the wards of the main institution—brings the total number of patients treated in the in-patient department to 9015. This is 669 more than the figures for 1912. Of the admissions, 1483 were medical cases; 4842 were surgical cases, and of these 648 were the immediate effects of accident; 1007 were ophthalmic cases; the ear and throat departments accounted for 316 and 527 cases respectively; and 378 were cases of diseases peculiar to women. Classified according to age and sex the figures are: men, 4201; women, 2926; and children of both sexes, 1426. The total number of beds available at the infirmary is 432, and the average number of in-patients during 1913 was 412. The available beds at the Robert Arthington and Ida Convalescent Hospitals is 88, and the daily average number of patients was 87. These figures show that the hospital is being worked at full pressure. The average number of patients was 14 in excess of that for 1912. The average stay in the infirmary of each patient was 16·3 days, as against 17·6 for 1912. The deaths amounted to 614, giving a percentage on the total number of in-patients dealt with of 6·8. There died within 48 hours of admission 195 patients, and if this number is deducted from the number of deaths the percentage works out at 4·8. The number of patients passed through the Robert Arthington and Ida Convalescent Hospitals was 1375. It will be remembered that these two buildings, which are connected with one another, are a special feature of the General Infirmary. To them are sent patients who require skilled attention and nursing, and they have arisen not in any way to take the place of ordinary convalescent hospitals but to lessen the pressure on the beds of the main institution by permitting the removal of patients at an earlier date than would otherwise be possible. During the year 219 patients were sent to various other convalescent hospitals and homes. In contrast with the increased pressure on the in-patient department there has been a distinct diminution in the number of the out-patients. The new medical out-patients numbered 6188, as compared with 10,435; and the new surgical out-patients 5274, as against 6312 for the preceding year. In the skin department there were 618 fewer applicants, and the numbers in the eye, ear, and throat departments were lessened by 281, 419, and 147 respectively. The gynæcological department has also had some relief. The diminution in the figures in the case of the medical out-patients may be in some measure accounted for by the institution of the new out-patient department for the nutritional disorders of infants in which 520 new cases were attended to. There has been a marked decrease in the number of casualties dealt with, the numbers for 1913

and 1912 respectively being 12,058 and 17,431. These statistics are of interest, as they cover a period corresponding to the first year of the working of the National Insurance Act. As might have been anticipated, there has been a marked decrease in the out-patient work, for many of the patients who formerly came for treatment were suffering from trivial affections and now doubtless are attended to under the provisions of the Act. The figures quoted in connexion with the casualty department show that a very large number of minor accidents are treated by medical men on the panel. The diminution in the number of the out-patients gives very little relief to the expenses of the infirmary. What little lessening of expenditure may have resulted is more than neutralised by the increasing expense of the in-patient departments, on which it is thought that the operations of the National Insurance Act will increase the pressure; for it is believed that the number of patients seeking admission will be greater, and that on the whole the cases will be more severe as there will be a natural sifting out of the less serious cases which will receive attention from those on the panel. The pressure on the resources of the infirmary will therefore become greater and not less, and in this connexion it may be well to comment briefly on the development of the scheme of extension which was set on foot as a memorial to the late King Edward. For this it may be remembered that a sum of £150,000 was mentioned; of this sum £110,000 has been obtained. When the appeal was made it had not been decided that the time had come when, to provide for possible future extensions, an attempt should be made to secure for the infirmary a considerable amount of ground in continuity with the present site. Happily, this has now been done, and though the land has been secured on favourable terms considering its central position, its acquisition has made a serious inroad on the memorial fund. Meanwhile the clearing of the area purchased is going on rapidly. (See THE LANCET, Sept. 14th, 1912, p. 778.) In the course of the next six months it is hoped that the new street will be constructed by the corporation to the east of the extended site, and this will enable the existing thoroughfares which at present limit the site of the infirmary to the east and north to be closed and included in the area available for the extensions. The plans of those parts of the scheme which involve the construction of the new operating theatres and a new ward pavilion, as well as the reconstructing of the out-patient department, are being carefully worked out by the architect in consultation with the board and the Faculty.

BOOKS, ETC., RECEIVED.

BALE (JOHN), SONS, AND DANIELSSON, LIMITED, London.

Beriberi. By Edward B. Vedder, A.M., M.D., Captain, Medical Corps, U.S. Army. Price 18*s.* net.

BLACK, ADAM AND CHARLES, Soho-square, London, W.

Practical Pathology, including Morbid Anatomy and Post-mortem Technique. By James Miller, M.D., D.Sc., F.R.C.P.E., Lecturer on Pathology and Bacteriology, School of Medicine of the Royal Colleges, Edinburgh, and Edinburgh School of Medicine for Women. Price 7*s.* 6*d.*

FROWDE, HENRY, AND HODDER AND STOUGHTON, London.

Practical Prescribing, with Clinical Notes. By Arthur H. Prichard, M.R.C.S., L.R.C.P., R.N. (retd.). Price 6*s.* net.

The Anatomist's Notebook. A Guide to the Dissection of the Human Body. By A. Melville Paterson, M.D. Edin., F.R.C.S. Eng., Professor of Anatomy in the University of Liverpool. Price 6*s.* net.

Radium Therapeutics. By N. S. Finzi, M.B. Lond., M.R.C.S., L.R.C.P., L.S.A., Chief Assistant in the X-Ray Department, St. Bartholomew's Hospital. Price 6*s.* net.

GRIFFIN, CHARLES, AND CO., LIMITED, London.

A Manual of Ambulance. By J. Scott Riddell, M.V.O., M.A., M.B., C.M., Senior Surgeon and Lecturer on Clinical Surgery, Aberdeen Royal Infirmary. Sixth edition. Much enlarged, and specially prepared for the use of Voluntary Aid Detachments. Price 6*s.* net.

HIRZEL, S., Leipzig.

Lehrbuch der Haut- und Geschlechtskrankheiten für Studierende und Aerzte. Von Prof. Dr. W. Scholtz, Direktor der Univ.-Poliklinik für Haut- und Geschlechtskrankheiten in Königsberg. I. Band: Geschlechtskrankheiten. Price, paper, M.12; bound, M.14.

Handbuch der Hygiene. Herausgegeben von Prof. Dr. M. Rubner, Geh. Medizinalrat, Berlin, Prof. Dr. M. v. Gruber, Obermedizinalrat, München, und Prof. Dr. M. Ficker, Berlin. III. Band, 3 Abteilung. Die Infektionskrankheiten. Price, paper, M.24; bound, M.27.

UNIVERSITY OF LONDON PRESS, LIMITED, London. (Published for the University of London Press, Limited, by HODDER AND STOUGHTON AND HENRY FROWDE.)

London Medical Publications. The Principle and Practice of Medical Hydrology; being the Science of Treatment by Waters and Baths. By R. Fortescue Fox, M.D. Lond., F.R.Met.Soc., late Hyde Lecturer on Hydrology, Royal Society of Medicine. Price not stated.

Appointments.

Successful applicants for vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

ALDRIDGE, F. J., M.B., B.Ch. Oxf., has been appointed Certifying Surgeon under the Factory and Workshop Acts for the Glastonbury District of the county of Somerset.

ANDERSON, FREDK. A., M.D., B.Ch., D.P.H. Univ. Dub., has been appointed Assistant Surgeon to the Eye, Ear, and Throat Hospital for Shropshire and Wales, Shrewsbury.

CARLILL, HILDRED B., M.D. Cantab., M.R.C.P. Lond., has been appointed Physician to the Miller General Hospital, Greenwich.

FAULKNER, A. J., L.R.C.P. & S. Irel., has been appointed Medical Officer of the Balla Dispensary District to the Castlebar Board of Guardians.

FEARNSIDES, E. G., M.B., B.C. Cantab., has been appointed Assistant Physician to the Maida Vale Hospital for Epilepsy and Paralysis.

FLEMMING, EMILY E., M.D., B.S. Lond., has been appointed Joint Lecturer in Medicine at the London School of Medicine for Women.

HEPBURN, MALCOLM, M.D. Lond., F.R.C.S. Eng., has been appointed Joint Lecturer in Ophthalmology at the London School of Medicine for Women.

KENNEDY, C. M., F.R.C.S. Eng., has been appointed Assistant Surgeon to the Children's Hospital, Shadwell.

LLOYD, D., M.B., M.Ch. Glasg., has been appointed Certifying Surgeon under the Factory and Workshop Acts for the Denbigh District of the county of Denbigh.

SHAW, P. W., M.B., M.Ch. Edin., has been appointed Certifying Surgeon under the Factory and Workshop Acts for the Blairgowrie District of the county of Perth.

STEELE, J., L.R.C.P. & S. Edin., L.F.P.S. Glasg., has been appointed Certifying Surgeon under the Factory and Workshop Acts for the Kidsgrove District of the county of Stafford.

THOMPSON, A., M.R.C.S., L.R.C.P. Lond., has been appointed Certifying Surgeon under the Factory and Workshop Acts for the Newbury District of the county of Berks.

WOODHEAD, Prof. G. SIMS, M.D. Edin., F.R.C.P. Edin., has been appointed Honorary Consulting Pathologist to the Royal National Hospital for Consumption, Ventnor.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

ASHTON-UNDER-LYNE DISTRICT INFIRMARY AND CHILDREN'S HOSPITAL.—Assistant House Surgeon. Salary £90 per annum, with board, residence, and laundry.

BANBURY, HORTON INFIRMARY.—House Surgeon. Salary £100 per annum, with board and residence.

BARROW-IN-FURNESS, COUNTY BOROUGH OF.—Assistant Medical Officer of Health and Assistant School Medical Officer. Salary £250 per annum.

BIRKENHEAD BOROUGH HOSPITAL.—Junior House Surgeon. Salary £100 per annum, with board and laundry.

BIRMINGHAM CITY FEVER HOSPITAL, Little Bromwich.—Second Assistant Medical Officer. Salary £160 per annum, with board and residence.

BIRMINGHAM, CITY OF.—Female Assistant Medical Officer of Health for Infant Consultation Work, &c. Salary £250 per annum.

BLACKPOOL, VICTORIA HOSPITAL.—House Surgeon.

BRADFORD CITY HOSPITAL, Leeds-road.—Assistant Resident Medical Officer. Salary £150 per annum, with board and residence.

BRADFORD ROYAL INFIRMARY.—House Surgeon, unmarried. Salary £100 per annum, with board, residence, and washing.

BURSLEY, VICTORIA HOSPITAL.—Second House Surgeon for six months. Salary at rate of £80 per annum, with residence, board, and washing.

BUXTON, DERBYSHIRE, DEVONSHIRE HOSPITAL.—Assistant House Physician for six months. Salary £100 per annum, with apartments, board, and laundry.

CARDIFF, KING EDWARD VII.'S HOSPITAL.—Resident Surgical Officer. Salary £160 per annum, with board, laundry, and apartments.

CARMARTHEN, JOINT COUNTIES ASYLUM.—Second Assistant Medical Officer. Salary £180 per annum, with board, lodging, washing, &c.

CHARING CROSS HOSPITAL.—Medical Registrar.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—House Surgeon, unmarried. Salary £80 per annum. Also Surgeon to Out-patients.

CHELSEA INFIRMARY, Cale-street, S.W.—Second Assistant Medical Officer. Salary £140 per annum, with board, washing, apartments, &c.

CHELTENHAM BOROUGH EDUCATION COMMITTEE.—Assistant Medical Officer of Health and Assistant School Medical Officer. Salary £250 per annum.

CHESTER, COUNTY ASYLUM.—Third Assistant Medical Officer, unmarried. Salary £200 per annum, with board, lodging, and washing.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House Physician for six months. Salary at rate of £75 per annum, with board and washing.

DARENTH INDUSTRIAL COLONY FOR THE FEEBLE-MINDED, Dartford, Kent.—Second and Third Assistant Medical Officers, unmarried. Salary £210 and £180 per annum respectively, with board, lodging, and washing.

DERBY COUNTY ASYLUM, Mickleover, Derby.—Junior Assistant Medical Officer. Salary £200 per annum, with board, lodging, and washing.

DERBY, DERBYSHIRE ROYAL INFIRMARY.—Assistant House Surgeon for six months.

DEWSBURY AND DISTRICT GENERAL INFIRMARY.—House Surgeon. Salary £120 per annum, with board, residence, and washing.

DORCHESTER, DORSET COUNTY HOSPITAL.—House Surgeon, unmarried. Salary £100 per annum, with residence, board, and laundry.

DUMFRIES AND GALLOWAY ROYAL INFIRMARY.—Assistant House Surgeon. Salary £65 per annum, with board and washing.

DUMFRIES, COUNTY OF DUMFRIES AND BURGHS.—Female Medical Assistants to Medical Officer of Health and School Medical Officer. Salary £250.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—House Physician and Assistant Casualty Officer for six months. Salary at rate of £75 per annum, with board, residence, laundry, &c.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—House Surgeon. Salary at rate of £75 per annum, with board, residence, and washing.

FRENCH HOSPITAL AND DISPENSARY, 172, Shaftesbury-avenue, W.C.—Second Resident Medical Officer, unmarried. Salary £80 per annum, with board and laundry.

GLASGOW DISTRICT MENTAL HOSPITAL, Gartloch.—Junior Medical Officer. Salary £230 per annum, with board, lodging, and laundry.

GLASGOW, GARTLOCH MENTAL HOSPITAL.—Medical Officer. Salary £200 per annum, with board, lodging, and laundry.

GLOUCESTER, GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Surgeon.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, London, N.—House Surgeon for six months. Salary at rate of £40 per annum, with board, residence, and laundry.

GREAT YARMOUTH HOSPITAL.—House Surgeon, unmarried. Salary £100 per annum, with board, lodging, and washing.

HARROGATE INFIRMARY.—Resident House Surgeon. Salary £75 (£100 after six months' service).

HOLBORN UNION INFIRMARY, Upper Holloway, N.—Second Assistant Medical Officer. Salary £110 per annum, with board, apartments, and washing.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—House Physician for six months. Salary 30 guineas.

LEEDS GENERAL INFIRMARY.—Resident Aural Officer. Salary £100 per annum, with board, residence, and laundry.

LIVERPOOL, LEASOWE SANATORIUM HOSPITAL FOR SURGICAL TUBERCULOSIS IN CHILDREN.—Resident Medical Officer, unmarried. Salary £250 per annum, with board and residence.

LIVERPOOL, ROYAL SOUTHERN HOSPITAL.—Resident Pathologist and Bacteriologist. Salary £150 per annum, with board and residence.

LIVERPOOL STANLEY HOSPITAL.—Junior House Surgeon. Salary £75 per annum, with board, residence, and laundry.

MACCLESFIELD GENERAL INFIRMARY.—House Surgeon. Salary £125 per annum, with board and residence.

MADRAS, CASTE AND GOSHA HOSPITAL.—Female Medical Officer. Salary £400 per annum.

MAIDSTONE, KENT COUNTY ASYLUM.—Fourth Assistant Medical Officer, unmarried. Salary £200 per annum, with quarters, attendance, washing, &c.

MANCHESTER EDUCATION COMMITTEE.—Assistant School Medical Officer. Salary £300 per annum.

NEWCASTLE-UPON-TYNE CITY ASYLUM, Gosforth.—Junior Assistant Medical Officer, unmarried. Salary £200 per annum, with apartments, board, and laundry.

NEW HOSPITAL FOR WOMEN, 144, Euston-road, N.W.—Female Senior Clinical Assistant in Ophthalmic Department.

NEWPORT (MON.), ROYAL GWENT HOSPITAL.—Resident Medical Officer. Salary at rate of £100 per annum, with board, residence, and laundry.

NORFOLK EDUCATION COMMITTEE.—Senior Assistant School Medical Officer Salary £350 per annum. Also School Dentist. Salary £250 per annum.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon, unmarried. Salary £180 per annum, with apartments, &c.

PERTH DISTRICT ASYLUM.—Assistant Physician. Salary £150 per annum and all found

PORTSMOUTH, ROYAL PORTSMOUTH HOSPITAL.—Pathologist. Salary £150 per annum. Also House Surgeon for six months. Salary £90 per annum, with board, &c.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney-road, Bethnal Green, E.—House Surgeon for six months. Salary £80 per annum, with board, residence, and washing.

ROYAL EYE HOSPITAL, Southwark, S.E.—Senior and Junior House Surgeons for six months. Salaries £70 and £50 per annum respectively, with board and residence. Also Clinical Assistants.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, E.C.—Honorary Laryngologist.

RYDE, ROYAL ISLE OF WIGHT COUNTY HOSPITAL.—Resident House Surgeon, unmarried. Salary £125 per annum.

ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN, Plaistow, E.—Senior Resident Medical Officer. Salary at rate of £90 per annum, with board, residence, and laundry.

ST. PANCRAS, SOUTH INFIRMARY, Cook's-terrace, Pancras-road, N.W.—Female Junior Assistant Medical Superintendent; also as Junior Assistant Medical Officer of Workhouse, King's-road, N.W. Salary at rate of £100 per annum, with residential allowances.

SALISBURY GENERAL INFIRMARY.—House Surgeon and Assistant House Surgeon, both unmarried. Salary £100 and £50 per annum respectively, with apartments, board, and lodging.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Senior House Surgeon. Salary £100 per annum, with board, residence, &c. Also Junior House Surgeon. Salary £80 per annum, with board, residence, &c.

SHEFFIELD, CHILDREN'S HOSPITAL, Western Bank.—House Surgeon. Salary £100 per annum, with board and residence.

SHOREDITCH INFIRMARY, Hoxton-street, N.—Junior Assistant Medical Officer for six months. Salary £150 per annum, with board, apartments, and washing.

SOUTHAMPTON, COUNTY BOROUGH OF.—Assistant Medical Officer of Health. Salary £250 per annum.

SOUTH LONDON HOSPITAL FOR WOMEN.—Clinical Assistant in Out-patient Department.

SOUTHWARK UNION INFIRMARY, East Dulwich-grove, S.E.—Third Assistant Medical Officer. Salary £120 per annum, with board, lodging, and washing.

SUNDERLAND, COUNTY BOROUGH OF.—Tuberculosis Medical Officer. Salary £500 per annum.

SWANSEA GENERAL AND EYE HOSPITAL.—House Physician. Salary £125 per annum, with board, apartments, and laundry.

TUNBRIDGE WELLS GENERAL HOSPITAL.—House Physician, unmarried. Salary £100 per annum, with board, residence, &c.

WALTHAMSTOW URBAN DISTRICT COUNCIL ISOLATION HOSPITAL, Chingford.—Resident Medical Officer. Salary £150 per annum, with rooms and board.

WARWICK COUNTY ASYLUM, Hatton, near Warwick.—Second Assistant Medical Officer, unmarried. Salary £200 per annum, with board, lodging, and laundry.

WEST BROMWICH AND DISTRICT HOSPITAL.—Assistant Resident House Surgeon and Anæsthetist, unmarried. Salary £75 per annum, with board, residence, and washing.

WEST HAM AND EASTERN GENERAL HOSPITAL.—Junior House Surgeon. Salary at rate of £75 per annum.

WEST HAM UNION SICK HOME, Forest-lane, Forest Gate.—Second Assistant Resident Medical Officer. Salary £140 per annum.

WIGAN, ROYAL ALBERT EDWARD INFIRMARY, AND DISPENSARY.—Senior House Surgeon. Salary £120 per annum, with board, apartments, and washing.

WILTS COUNTY ASYLUM, Devizes.—Junior Assistant Medical Officer. Salary £225 per annum, with board, lodging, attendance, and laundry.

WINCHESTER, ROYAL HAMPSHIRE COUNTY HOSPITAL.—House Physician. Salary £80 per annum.

WOLVERHAMPTON UNION WORKHOUSE AND COTTAGE HOMES.—Assistant Resident Medical Officer, unmarried. Salary £200 per annum, with apartments, rations, &c.

YORK COUNTY HOSPITAL.—House Physician for six months. Salary at rate of £100 per annum, with board, residence, &c.

THE Chief Inspector of Factories, Home Office, London, S.W., gives notice of vacancies as Certifying Surgeons under the Factory and Workshop Acts at Bellananagh, in the county of Cavan; at Charlestown, in the county of Mayo; at Cromarty, in the counties of Ross and Cromarty; at Exmouth, in the county of Devon; at Eye, in the county of Suffolk; at Ketton, in the county of Leicester; and at Wellington, in the county of Somerset.

THE Home Secretary gives notice of a vacancy for a Medical Referee under the Workmen's Compensation Act, 1906, for all ophthalmic cases arising in County Court Circuit No. 29. Applications should be addressed to the Private Secretary, Home Office, S.W., not later than Feb. 4th.

*** The summary of vacant appointments, published weekly in this column, is, equally with other articles, the literary copyright of the Proprietors of THE LANCET.

Births, Marriages, and Deaths.

BIRTHS.

BIRKS.—On Jan. 5th, at Harpur-place, Bedford, the wife of Guy Thornton Birks, M.B. Cantab., of a daughter.

GRAY.—On Jan. 9th, at De Walden Court, the wife of H. Tyrrell Gray, F.R.C.S., 60, Harley-street, of a daughter.

PAGE.—On Jan. 11th, at Holly House, North Walsham, the wife of Cecil H. W. Page, M.A., M.D. Cantab., of a son.

STREATFEILD.—On Jan. 10th, at Ovington-square, S.W., the wife of Raymond Streatfeild, M.R.C.S., L.R.C.P., of a daughter.

YOUNG.—On Jan. 8th, at Hornsey Rise-gardens, N., Helen, the wife of Graham Pallister Young, M.B., B.S., of a son.

DEATHS.

BOLDERO.—On Jan. 7th, at Langford, Solihull, Frederick Boldero, M.R.C.S.E., late of Penkridge, Staffs, aged 72

BOWIE.—On Jan. 2nd, at Park Hall, Bixter, Shetland, William Alexander Tait Bowie, second son of James Cameron Bowie, M.B., C.M., aged 2 years 8 months.

COMPTON.—On Jan. 5th, at Keyingham, Hull, Maurice Winzar Compton, M.R.C.S., L.R.C.P., aged 36.

GORDON.—On Jan. 8th, at The Fountain, Tooting Graveney, London, S.W., Annie, wife of James Leslie Gordon, M.D.

HARSANT.—On Jan. 9th, at The Hive, Exeter-road, Bournemouth, Joseph George Harsant, M.D., M.R.C.P., aged 52.

HOLMES.—On Jan. 7th, at Boston Spa, Frederick Holmes, M.R.C.S., L.S.A., late of Leeds.

SUTHERLAND.—On Jan. 9th, at Lungla, South Sylliet, India, Charles David Sutherland, M.B., C.M. Edin., aged 48 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

XIPHOPAGOUS "MONSTERS."

THIS title we use with apology. It is one which THE LANCET years ago thought unfair to apply to two human beings yoked by nature, but the French press is using it in respect of "un monstre double du genre de Radica-Doodica." The allusion is to Madeleine and Suzanne, two babies who were born in the neighbourhood of Rheims on Nov. 27th last, and who are joined together by a cartilaginous band which extends from "the inferior part of the thorax to the superior part of the abdomen." It is said to measure 5 centimetres long and 14 centimetres in circumference. A more detailed account will be found in the letter from our Paris correspondent this week. This case recalls to memory the famous Siamese twins, Chang and Eng, or rather, to give them their due as American citizens, Chang and Eng Bunker, who were born in Siam in May, 1811, and visited this country in 1829, when they were subjected to most minute and careful examination by a large number of surgeons, among them Sir William Fergusson, who again examined them in 1869, when the twins desired to obtain his opinion, as well as that of Mr. Syme and of Dr. Nélaton, upon the propriety of attempting to sever the connecting band between them. The band uniting them was a fleshy mass of considerable depth and thickness. It was 4½ inches in extreme length, about 7½ inches in circumference at the centre, and 3½ inches deep at its junction with each body. Further particulars will be found in a special report of the examination in THE LANCET of Feb. 13th, 1869, p. 228, and when they died in 1874—Chang on Jan. 16th and Eng on the following day—a commission was appointed to conduct a post-mortem examination upon them. The report of this examination we published in THE LANCET of March 14th, 1874, p. 385, and a Supplementary Report on April 4th, 1874, p. 493. The name of "Siamese" twins has been freely used since their time for other similar "monsters," the last time when the name was applied being to the "Siamese" twin sisters who were born in Prague and were 36 years old in the year 1910. The birth of a child to one of these sisters, entitled "A Unique Obstetrical Event," will be found recorded in THE LANCET of June 11th, 1910, p. 1652. The particulars of such cases are of real pathological interest.

CALENDAR MNEMONICS.

A CORRESPONDENT, a medical journalist, writes:—"This is said to be one of the most ancient arts in the world and could with advantage be more adopted. There have been good, bad, and indifferent systems promulgated and practised in past times, but when not carried to excess simple aids to memory have their uses. For instance, at the beginning of a new year there are many days important to us, fixed by the date, but uncertain as to the day of the week, or *vice versâ*. On what date will the first Monday of a certain month set aside for a statutory meeting fall? On what day will a certain anniversary occur?" Our correspondent goes on to suggest a "simple" aid to memory, which we would rather have qualified as ingenious, and that it certainly is. He says: "By composing a couplet, grave or gay, some assistance may be afforded. Suppose, for example, it is desired to remember the order of all the Saturdays in the present year of 1914. After a few minutes' work a couplet may be fashioned as follows:—

> The surgeon swiftly puts in knives
> Soon o! saves our blessed lives.

On inspection it will be observed that the number of letters in each word, taken in order, are 3, 7, 7, 4, 2, 6, and 4, 1, 5, 3, 7, 5. These are the dates of the first Saturdays of the months throughout the year, from which it is easy to discover the rest. For instance, Jan. 3rd is the first Saturday, and it is simple to run on with 10, 17, 24, 31, and from these days any others may be reckoned; in fact, the whole calendar for the year could be set down at once on a blank sheet of paper. Such simple aids are not to be despised, and ingenious couplets may be devised by anyone. 'Alliteration's artful aid' is perhaps desirable in choosing the words of the couplet."

THE DEATH-RATE IN DUTCH GUIANA.

In a report on the affairs of Surinam, or Dutch Guiana, in South America, Mr. G. Hewett, the British Consul, observes that the total population of the colony is, roughly speaking, 85,000, of whom half are British subjects of the labouring classes from British India and the West Indies. The public health is not in a very satisfactory state, and the visible evidence of disease is striking in so small a community. The principal diseases are leprosy, tuberculosis, ankylostomiasis, filaria, elephantiasis, and tropical fevers. Whilst the births are fairly stationary the deaths are increasing by leaps and bounds, as witness the following figures: Births in 1910, 2777; in 1911, 2720; and in 1912, 2733. Deaths in 1910, 1987; in 1911, 2154; and in 1912, 2424. The male births slightly exceed the female, but the latter appears to be the healthier sex, the male deaths largely exceeding the female. The country is in a backward state, and has not kept up with the rapid progress of the last 50 years in other tropical countries. Half the population lives in the only town the colony possesses—Paramaribo. This town has no water-supply beyond what rain water each house can catch for itself. In times of drought water has to be brought down by train in tanks. The one thing that the colony can with reason point to with pride is the hospital, which would be a credit to any country. It can accommodate 700 or 800 patients, and is thoroughly up to date in all its scientific appliances, and is conducted by an efficient and ample medical and nursing staff. It is generally fairly full.

NINETY-SEVEN GREAT TOWNS.

THE borough of Exeter as extended in 1913 contained a population of more than 50,000 persons at the last Census. Commencing with the return just issued from Somerset House, the figures for Exeter are therefore given in Table I. of the report, which now includes 97 large English and Welsh towns. For these great towns of England and Wales the deaths registered last week corresponded to an annual rate of 19·3 per 1000 of their aggregate population, which is estimated at 18,120,059 persons in the middle of this year. In the three weeks ended Dec. 20th and 27th, 1913, and Jan. 3rd, 1914, the rates in the 96 towns had been 14·6, 14·8, and 18·6 respectively. There were 95 great towns in 1912 and 96 in 1913. The number is gradually approaching 100.

A WARNING.

Mr. Stanley Phillips asks us to announce that a warrant is out for the arrest of a man who professes to be travelling with books for his firm, but who has never been employed by him. He calls on medical practitioners with samples of medical books and seeks to obtain orders and payments. Among other names he uses are those of Williams and Longford. He should be detained while the police are communicated with.

DR. PENNELL OF BANNU.

Dr. J. Cropper writes: "While thanking you for your notice of the work of the late Dr. Pennell at Bannu (THE LANCET, Jan. 10th, p. 152), may I call attention to his initials, which are T. L., not A. M.? Messrs. Seeley will shortly publish his life."

C. W. G.—The 12 h.p. Rover car is made as a two-seater as well as a four-seater, and the former would meet your requirements, especially as you want it for professional purposes only. It would do all you are likely to ask of it in this direction. The Morris-Oxford and the little Swift are well spoken of, but our Motoring Correspondent is not personally acquainted with either of them. We understand, however, that he hopes to test both of them in the near future.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Jan. 14th, 1914.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radio in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks.
Jan. 8	30·18	S.W.	...	55	54	34	42	43	Cloudy
,, 9	30·02	WSW	0·15	61	57	43	53	54	Overcast
,, 10	30·12	S.W.	0·19	67	54	52	52	52	Raining
,, 11	30·29	N.E.	...	53	49	34	33	35	Cloudy
,, 12	30·50	N.E.	...	45	38	33	31	33	Overcast
,, 13	30·50	N.E.	...	40	38	32	34	35	Overcast
,, 14	30·29	N.E.	...	48	36	35	34	36	Overcast

The following journals, magazines, &c., have been received:—Medical Journal of South Africa, Nursing Record, Archiv für Schiffs- und Tropen-Hygiene, Midland Medical Journal, South African Medical Record, Malaria Canadian Journal of Medicine and Surgery, Medical Review, Post Graduate, Monthly Cyclopedia and Medical Bulletin, Archives of the Roentgen Ray, Jahrbuch für Kinderheilkunde, Hospital Gazette, Bedrock, Biochemical Journal, Die Therapie der Gegenwart, Review of Neurology and Psychiatry, Hospital Assistant, Bulletins et Mémoires de la Société de Radiologie Medicale de France, Indian Medical Record, Journal d'Urologie, Dominion Medical Monthly, London Hospital Gazette, Journal of Tropical Medicine and Hygiene, Child, Bulletin of the Johns Hopkins Hospital, &c.

Medical Diary for the ensuing Week.

SOCIETIES.

ROYAL SOCIETY, Burlington House, London, W.

THURSDAY.—Mr. R. T. Glazebrook and Mr. D. W. Dye: On the Heat Production associated with Muscular Work. A Note on Prof. Macdonald's paper (Proceedings of the Royal Society, B. vol. lxxxvii.).—Mr. M. Wheldale and Mr. H. L. Bassett: The Chemical Interpretation of Some Mendelian Factors for Flower Colour (communicated by Prof. W. Bateson).—Prof. G. Dreyer and Dr. E. W. A. Walker: The Determination of the Minimum Lethal Dose of Various Toxic Substances and its Relationship to the Body Weight in Warm-blooded Animals, together with Considerations Bearing on the Dosage of Drugs (communicated by Prof. C. S. Sherrington).—Prof. R. Kennedy: Experiments on the Restoration of Paralysed Muscles by means of Nerve Anastomosis. Part II.: Anastomosis of the Nerves supplying Limb Muscles (communicated by Prof. J. G. McKendrick).—Dr. F. N. White: Variations in the Sex Ratio of Mus Rattus following an Unusual Mortality of Adult Females, based on an Analysis of Weight Frequency Distributions (communicated by Dr. C. J. Martin).

ROYAL SOCIETY OF MEDICINE, 1, Wimpole-street, W.

TUESDAY.

SECTION OF THERAPEUTICS AND PHARMACOLOGY (Hon. Secretaries: W. Langdon Brown, Philip Hamill): at 4.30 P.M.

Discussion:

On the Therapeutical Value of Hormones (opened by Professor G. R. Murray). The following will take part:—Professor E. H. Starling, Dr. Leonard Williams, Dr. T. R. Elliott, Dr. H. H. Dale, and the President (Dr. Hale White).

GENERAL MEETING OF FELLOWS at 5 P.M.

Ballot for Candidates for Fellowship.

FRIDAY.

SECTION FOR THE STUDY OF DISEASE IN CHILDREN (Hon. Secretaries—F. Langmead, Philip Turner, William J. Midelton): at 4.30 P.M.

Dr. T. R. Whipham: (1) Kala-azar; (2) Athetoid Movements.
Dr. Eric Pritchard: (1) Abnormal Cysts on the Shoulder of an Infant (Caput Succedaneum); (2) Specimen of Hydroureter in an Infant.
Dr. J. Walter Carr: Polio-encephalitis.
Dr. F. G. Crookshank: Two Cases.
And other Cases.

SECTION OF EPIDEMIOLOGY AND STATE MEDICINE and SECTION OF OBSTETRICS AND GYNÆCOLOGY: Joint Meeting. at 8.30 P.M.

Discussion:

On Compulsory Registration and Definition of Still Births (to be opened by a paper by Dr. R. Dudfield).

(Members of the Medico-Legal Society have also been invited.)

LONDON DERMATOLOGICAL SOCIETY, St. John's Hospital, 49, Leicester-square, W.C.

TUESDAY.—4.30 P.M., Demonstration of Pathological Specimens. Cases sent for Consultation. Clinical Cases will be shown by Dr. Dockrell, Dr. Bunch, Dr. Sibley, Dr. Phibbs, Dr. Gooding, and Dr. Griffith. 5.15 P.M., Discussion on Dr. Hampson's paper on the Dosage of X Rays (opened by Dr. Sibley).

CHELSEA CLINICAL SOCIETY, Club Rooms of the Medical School, St. George's Hospital, S.W.

TUESDAY.—8.30 P.M., Paper:—Mr. I. Back: The Mayo Clinic and Some Other Things in America. Followed by a discussion.

ROYAL MICROSCOPICAL SOCIETY, 20, Hanover-square, W.

WEDNESDAY.—8 P.M., Presidential Address:—Prof. G. S. Woodhead: The Microscope and Medicine.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies-street, W.C.

MONDAY.—4 P.M., Dr. H. MacCormac: Clinique (Skin). 5.15 P.M., Lecture:—Dr. J. L. Bunch: Skin Diseases in Children.

TUESDAY.—4 P.M., Dr. P. Stewart: Clinique (Medical). 5.15 P.M., Lecture:—Mr. N. Raw (Liverpool): The Treatment of Localised Tuberculosis.

WEDNESDAY.—4 P.M., Dr. D. C. L. Fitzwilliams: Clinique (Surgical). 5.15 P.M., Lecture:—Dr. H. D. Rolleston: Splenic Anæmia and Banti's Disease.

THURSDAY.—4 P.M., Dr. C. M. H. Howell: Clinique (Medical). 5.15 P.M., Lecture:—Dr. H. C. Miller: Psychotherapeutic Methods—Analysis.

FRIDAY.—4 P.M., Mr. E. A. Peters: Clinique (Ear, Nose, and Throat).

POST-GRADUATE COLLEGE, West London Hospital, Hammersmith-road, W.

MONDAY.—10 A.M., Dr. Simson: Diseases of Women. 10.30 A.M., Medical Registrar: Demonstration of Cases in Wards. 12 noon, Dr. Bernstein: Pathological Demonstration. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Armour: Operations. Dr. Pritchard: Bacterial Therapy Department. 2.30 P.M., Mr. Dunn: Diseases of the Eye. 5 P.M., Lecture:—Dr. Simson: Minor Gynæcological Operations and their Treatment.

TUESDAY.—10 A.M., Dr. Robinson: Gynæcological Operations. 10.30 A.M., Surgical Registrar: Demonstration of Cases in Wards. 12 noon, Mr. T. Gray: Demonstration of Fractures, &c. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Baldwin: Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. Dr. Pernet: Diseases of the Skin. 5 P.M., Lecture:—Dr. Pernet: Dermatitis Artefacta.

WEDNESDAY.—10 A.M., Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. 11 A.M., Mr. Souttar: Demonstration of Minor Operations. 12 noon, Lecture:—Mr. Souttar: Abdominal Diagnosis. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Pardoe: Operations. Mr. B. Harman: Diseases of the Eye. Dr. Simson: Diseases of Women. 5 P.M., Lecture:—Mr. Ll. Williams: Aural Sepsis, its Relation to General Diseases and its Treatment.

THURSDAY.—9 A.M., Dr Bernstein: Bacterial Therapy Department. 10.30 A.M., Dr. Simson: Gynæcological Demonstration. 12.15 P.M., Lecture:—Dr. G. Stewart: Neurological Cases. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Armour: Operations. 2.30 P.M., Mr. Dunn: Diseases of the Eye. 5 P.M., Lecture:—Mr. Ll. Williams: Aural Sepsis, its Relation to General Diseases and its Treatment.

FRIDAY.—10 A.M., Dr. Robinson: Gynæcological Operations. 12.15 P.M., Lecture:—Dr. Bernstein: Clinical Pathology. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Baldwin: Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. Dr. Pernet: Diseases of the Skin. 5 P.M., Lecture:—Dr. Pernet: Drug Rashes.

SATURDAY.—10 A.M., Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. Mr. B. Harman: Diseases of the Eye. 12 noon, Lecture:—Mr. Souttar: Surgical Anatomy of the Abdomen. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Pardoe: Operations.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.

MONDAY.—Out-patient Demonstrations:—10 A.M. Dr. Singer: Medical. Mr. H. Curtis: Surgical. 12 noon, Mr. G. N. Biggs: Throat, Nose, and Ear.—2.15 P.M., Mr. W. Turner: Surgery. 3 P.M., Mr. W. Turner: Operations. 3.15 P.M., Sir Dyce Duckworth: Medicine. 4.15 P.M., Mr. R. Lake: Ear and Throat.

TUESDAY.—Out-patient Demonstrations:—10 A.M., Dr. G. Holmes: Medical. Mr. Cole: Surgical. 12 noon, Dr. H. MacCormac: Skin.—2 P.M., Mr. L. McGavin: Operations. 2.15 P.M., Mr. R. Carling: Surgery. 3.15 P.M., Dr. G. Rankin: Medicine.

WEDNESDAY.—Out-patient Demonstrations: 10 A.M., Dr. F. Langmead: Medical. Mr. Cecil Rowntree: Surgical. 11 A.M., Mr. R. R. Bickerton: Eye.—2 P.M., Mr. L. V. Cargill or Mr. Choyce: Operations. 2.15 P.M., Dr. F. Taylor: Medicine. 3.15 P.M., Mr. Cargill: Eye Clinique. 4.30 P.M., Mr. C. C. Choyce: Surgery.

THURSDAY.—Out-patient Demonstrations:—10 A.M., Dr. Singer: Medical. Mr. H. Curtis: Surgical. 12 noon, Mr. G. N. Biggs: Throat, Nose, and Ear.—2 P.M., Mr. R. Carling or Mr. W. Turner: Operations. Dr. A. Davies: Pathological Demonstration. 3.15 P.M., Dr. R. Wells: Medicine.

FRIDAY.—Out-patient Demonstrations:—10 A.M., Dr. G. Holmes: Medical. Mr. Cole: Surgical. 12 noon, Dr. H. MacCormac: Skin.—2 P.M., Mr. L. McGavin: Operations. 2.15 P.M., Sir John Rose Bradford: Medicine. 3.15 P.M., Mr. L. McGavin: Surgery.

SATURDAY.—Out-patient Demonstrations: 10 A.M., Dr. F. Langmead: Medical. Mr. Cecil Rowntree: Surgical. 11 A.M., Mr. R. R. Bickerton: Eye.—10 A.M., Col. Barry: Radiography.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.

MONDAY.—Clinics:—10.30 A.M., Surgical Out-patient (Mr. H. Gillespie). 2.30 P.M., Medical Out-patient (Dr. T. R. Whipham); Nose, Throat, and Ear (Mr. H. D. Gillies). 3 P.M., Medical In-patients (Dr. R. M. Leslie).

TUESDAY.—2.30 P.M., Operations. Clinics:—Medical Out-patient (Dr. A. G. Auld); Surgical (Mr. Howell Evans); Gynæcological (Dr. A. B. Giles). X Rays and Electrical Methods. 3 P.M., Retinoscopy and Mistakes in Method (Mr. Dorrell). 3.30 P.M., Medical In-patient (Dr. A. J. Whiting). 4.15 P.M., Lecture:—Dr. R. M. Leslie: The Etiology and Treatment of Asthma.

WEDNESDAY.—Clinics:—2 P.M., Throat Operations (Mr. Gillies). 2.30 P.M., Children's Out-patient (Dr. T. R. Whipham); Skin (Dr. G. N. Meachen); Eye (Mr. R. P. Brooks). 5.30 P.M., Eye Operations (Mr. Brooks).

THURSDAY.—2.30 P.M., Gynæcological Operations (Dr. A. B. Giles). Clinics:—Medical Out-patient (Dr. A. J. Whiting); Surgical (Mr. Carson); X Rays and Electrical Methods (Dr. Metcalfe).

FRIDAY.—2.30 P.M., Operations. Clinics:—Medical Out-patient (Dr. A. G. Auld); Surgical (Mr. E. Gillespie); Eye (Mr. R. P. Brooks). 3 P.M., Medical In-patient (Dr. G. P. Chappel); Clinical Pathology and Pathological Demonstration.

LONDON HOSPITAL MEDICAL COLLEGE (UNIVERSITY OF LONDON), Clinical Theatre, London Hospital, Mile End-road, E.

Course of Lectures on the Neuroses and Psychoses of Children:—

MONDAY.—4.15 P.M., Dr. F. Warner: Mental Aptitudes and Abilities

THE THROAT HOSPITAL, Golden-square, W.

MONDAY.—5.15 P.M., Special Demonstration of Selected Cases.
THURSDAY.—5.15 P.M., Clinical Lecture.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn road, W.C.

FRIDAY.—3 P.M., Lecture:—Mr. Stuart-Low: Nasal Catarrh.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen-square, Bloomsbury, W.C.

TUESDAY AND FRIDAY.—3.30 P.M., Clinical Lectures:—Mr. D. Armour: Tumour of the Spinal Cord.

QUEEN'S HOSPITAL FOR CHILDREN, Board Room of the Hospital, Hackney-road, N.E.
THURSDAY.—4 P.M., Post-Graduate Lecture: Mr. J. H. Connolly: Demonstration of Nose, Ear, and Throat Cases.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, 49, Leicester-square, W.C.
TUESDAY.—2 P.M., Dr. W. Griffith: Pathology of the Dermis.
THURSDAY.—6 P.M., Dr. M. Dockrell: Acne Vulgaris in its Three Stages—I., Comedo; II., Indurata; III., Necrotica.

ROYAL INSTITUTE OF PUBLIC HEALTH, Lecture Room of the Institute, 37, Russell-square, W.C.
Course of Instruction for Tuberculosis Officers, School Medical Officers, Medical Practitioners, &c.:—
FRIDAY.—5 P.M., The Diagnosis and Treatment of Tuberculosis, &c.—Lecture II.:—Dr. F. E. Fremantle: The Causes and Prevention of Tuberculosis.

ROYAL INSTITUTION OF GREAT BRITAIN, Albemarle-street, Piccadilly, W.
TUESDAY.—3 P.M., Prof. W. Bateson: Animals and Plants under Domestication. (Lecture I.)
THURSDAY.—3 P.M., Dr. W. McDougall: The Mind of Savage Man—(1) His Intellectual Life.
FRIDAY.—9 P.M., Prof. Sir James Dewar: The Coming of Age of the "Vacuum Flask."

GRESHAM COLLEGE, Basinghall-street, E.C.
Gresham Lectures—Medicine, Old and New.
TUESDAY.—6 P.M., Lecture I., Dr. F. M. Sandwith: Medicine in Sir Thomas Gresham's Day.
WEDNESDAY.—6 P.M., Lecture II., Dr. F. M. Sandwith: The XVIIth International Congress of Medicine of 1913.
THURSDAY.—6 P.M., Lecture III.:—Dr. F. M. Sandwith: The Recent International Congress of Medicine (continued).
FRIDAY.—6 P.M., Lecture IV.:—Dr. F. M. Sandwith: Cinematograph Pictures Relating to Biological Science.

MANCHESTER HOSPITALS POST-GRADUATE CLINIC.
MONDAY.—MANCHESTER CHILDREN'S HOSPITAL, Gartside-street.—4.30 P.M., Mr. C. Roberts: Tuberculous Disease of the Knee-joint.
TUESDAY.—SALFORD ROYAL HOSPITAL—4.30 P.M., Mr. Ollerenshaw: Demonstration of Orthopædic Cases.
WEDNESDAY.—ROYAL INFIRMARY—4.30 P.M., Dr. F. C. Moore: Reflex Dyspepsia.
THURSDAY.—ANCOATS HOSPITAL—4.30 P.M., Dr. C. H. Melland: Congenital Heart Disease.
FRIDAY.—ROYAL EYE HOSPITAL—4.30 P.M., Dr. J. Wharton: Detection of Opacities in the Media.

UNIVERSITY OF SHEFFIELD POST-GRADUATE CLINICAL DEMONSTRATIONS.
TUESDAY.—SHEFFIELD ROYAL INFIRMARY.—3 P.M., Dr. Kerr: The Suppurating Ear—What to do with it.
FRIDAY.—SHEFFIELD ROYAL HOSPITAL.—3 P.M., Dr. Nutt: The Application of X Rays to the Diagnosis of Gastro-intestinal Diseases.

ROTUNDA HOSPITAL POST-GRADUATE COURSES, Dublin.
MONDAY.—10 A.M., Obstetrical Lecture: Extra-uterine Pregnancy. 11 A.M. Examination of Patients and Minor Operations.
TUESDAY.—10 A.M., Major Operations.
WEDNESDAY.—10 A.M., Obstetrical Lecture: Accidental Hæmorrhage. 11 A.M., Examination of Patients and Minor Operations.
THURSDAY.—10 A.M., Major Operations.
FRIDAY.—10 A.M., Gynæcological Lecture: Displacements of the Uterus. 11 A.M., Examination of Patients and Minor Operations.

For further particulars of the above Lectures, &c., see Advertisement Pages.

EDITORIAL NOTICES.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITOR," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention should be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index and Title-page to Vol. II. of 1913 were given in THE LANCET of Dec. 27th, 1913.

VOLUMES AND CASES.

VOLUMES for the second half of the year 1913 are now ready. Bound in cloth, gilt lettered, price 16*s.*, carriage extra.

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s.*, by post 2*s.* 3*d.*

To be obtained on application to the Manager, accompanied by remittance.

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